

ACIDIC PRECIPITATION

IN ONTARIO STUDY

ANNUAL STATISTICS OF

CONCENTRATION AND DEPOSITION

DAILY PRECIPITATION AND

AIR MONITORING NETWORK

1988

MAY 1990



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1988

Report prepared for:
Air Resources Branch
Ontario Ministry of the Environment

Report prepared by:
A.P.I.C.S. Coordination Office
Ontario Ministry of the Environment

MAY 1990



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TABLE OF CONTENTS

		<u>Page</u>
PART I	INTRODUCTION	III
PART II	STATION DESCRIPTION AND LOCATION MAP	IV
PART III	SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY STATION	
	<u>Station</u>	<u>Map Ref. No.</u>
	Balsam Lake	06
	Charleston Lake	11
	Dawson	17
	Dorset	08
	Egbert	20
	Fernberg	16
	Gowganda	18
	High Falls	19
	Longwoods	02
	Melbourne	01
	Nithgrove	07
	North Easthope	03
	Penn. State	n/a
	Quetico Centre	14
	Railton	10
	Raven Lake	05
	Sutton	n/a
	Wellesley	04
	Wilmer	9A
PART IV	SUMMARY OF STATISTICS OF PRECIPITATION CONCENTRATION BY REGION	
	Central Region	20
	Northeastern Region	21
	Northwestern Region	22
	Southeastern Region	23
	Southwestern Region	24
PART V	SUMMARY STATISTICS OF WET DEPOSITION BY STATION	
	<u>Station</u>	<u>Map Ref. No.</u>
	Balsam Lake	06
	Charleston Lake	11
	Dawson	17
	Dorset	08
	Egbert	20

Fernberg	16	31
Gowganda	18	32
High Falls	19	33
Longwoods	02	34
Melbourne	01	35
Nithgrove	07	36
North Easthope	03	37
Penn. State	n/a	38
Quetico Centre	14	39
Railton	10	40
Raven Lake	05	41
Sutton	n/a	42
Wellesley	04	43
Wilmer	9A	44

PART VI SUMMARY STATISTICS OF WET DEPOSITION BY REGION

Central Region	45
Northeastern Region	46
Northwestern Region	47
Southeastern Region	48
Southwestern Region	49

PART VII SUMMARY STATISTICS OF AIR CONCENTRATION BY STATION, REGION

<u>Station</u>	<u>Map Ref. No.</u>
Balsam Lake, CE Region	06
Charleston Lake, SE Reg.	11
Dorset, Central Region	08
Egbert, CE Region	20
Fernberg, NW Region	16
Gowganda, NE Region	18
High Falls, NE Region	19
Longwoods, SW Region	02
Penn. State, Pa.	n/a
Wellesley, SW Region	4

PART VIII SUMMARY STATISTICS OF AIR CONCENTRATION BY REGION

Central Region	61
Northeastern Region	62
Northwestern Region	63
Southeastern Region	64
Southwestern Region	65

PART I

INTRODUCTION

INTRODUCTION

This report was prepared by Diane Green. The statistical summaries presented in this report pertain to the 1988 analytical results obtained from the Acidic Precipitation in Ontario Study (APIOS) daily precipitation and air monitoring network. The relevant data can be obtained on request from the Air Resources Branch of the Ministry. All available data are utilized in the calculations except results reported as being unreliable (i.e. results are identified as unreasonable values by using the validation procedures; detailed description of the validation procedures is available from the Ministry upon request) or approximate (i.e., inexact results are reported due to laboratory difficulties, such as may be encountered in calibration, or when the sample cannot be re-analyzed to confirm the reported values). In a very few cases, concentration levels exceeded the upper limit of the range of the chemical analysis. Rather than using the upper limit, a decision was made to exclude these values from the statistics generated in this report. If a reported value is labelled as <W, it is replaced by a "zero". W is the level which the analytical technique cannot distinguish from zero. Prior to 1986, if a level was recorded less than the detection limit, T, a value corresponding to one half the detection limit is utilized for statistical calculations as reported in the statistical summaries. These values are not longer halved. Note that T is normally about ten times W, and values above the T criterion are considered to be precise and accurate. W corresponds to approximately one standard deviation of low level duplicates or real samples.

The reported precipitation gauge depth (standard range gauge or nipher shielded snow gauge) is utilized in the calculation of deposition. If a rain gauge value is not available then the collected sample value is converted to its equivalent precipitation depth and is used in the deposition calculation.

In the air concentration statistical summaries, "Nitric Acid" represents "Nitric Acid" and "Totl NO," represents total nitrates calculated by the summation of particulate "Nitrate" and "Nitric Acid". The air filter measurement for sulphur dioxide includes a contribution from nylon-filter impregnated SO₂. In these reports the sulphur on nylon filters is interpreted as sulphur dioxide. However, it is possible that organic sulphur compounds also contribute to this loading.

Methods do not currently exist to quantify this contribution in routine network monitoring.

The statistical summaries presented in Parts III to VII include the number of samples, mean (arithmetic/geometric), standard deviation (arithmetic/geometric), maximum, minimum and quartiles and volume weighted means using precipitation gauge depths where appropriate.

PART II

STATION DESCRIPTION AND LOCATION MAP



APIOS DAILY SEQUENTIAL SAMPLERS
CONVERSION TO ERT FILTERS

1 9 8 8

DORSET 1	2-stage 47mm June22-July18	3-stage 47mm July19-Aug17	3-stage 50mm Aug18-onwards
DORSET 2	2-stage 47mm June22-July18	2-stage 47mm/6hr July19-Aug14	2-stage 50mm/6hr Aug15-Sept1
	2-stage 50mm Sept2-Oct19	3-stage 50mm Oct20-onwards	
EGBERT	3-stage 50mm from inception		
BALSAM LAKE	2-stage 47mm prior to Jun10	3-stage 47mm Jun10-Aug18	3-stage 50mm Aug19-onwards
PENN STATE 1 AND 2	2-stage 47mm May11-July1	3-stage 47mm July2-Aug31	3-stage 50mm Sept1-onwards
CHARLESTON LAKE	2-stage 47mm undetermined	3-stage 47mm undetermined	3-stage 50mm Dec13-onwards
FERNBERG	2-stage 47mm undetermined	3-stage 47mm undetermined	3-stage 50mm Oct-onwards
GOWGANDA	2-stage 47mm till JUL5	3-stage 47mm JUL6-AUG23	3-stage 50mm AUG24-onwards
HIGH FALLS	2-stage 47mm till JUL5	3-stage 47mm JUL6-AUG30	3-stage 50mm AUG31-onwards
LONGWOODS	2-stage 47mm till AUG22		3-stage 50mm 23Aug-onwards
WELLESLEY	2-stage 47mm till AUG22		3-stage 50mm 23 Aug-onwards

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS-ACIDIC PRECIPITATION IN ONTARIO STUDY
 DAILY PRECIPITATION SITES

STATION ID	MOE REGION	STATION NAME	UTM GRID CO-ORDINATES (EASTING) (NORTHING)	
			ELEV (M)	LATITUDE (NORTH) LONGITUDE (WEST)
000002-02-01-1011	SOUTHWESTERN	LONGWOODS	239	42°53'03" 81°28'50"
000002-02-01-1021	SOUTHWESTERN	MELBOURNE	213	42°47'12" 81°53'27"
000002-02-01-1031	SOUTHWESTERN	NORTH EASTHORPE	375	43°24'22" 80°53'45"
000002-02-01-2011	SOUTHWESTERN	WELLESLEY	344	43°38'05" 80°57'33"
000002-02-01-2031	SOUTHWESTERN	EGERTON	284	44°13'57" 74°46'53"
000002-02-01-3011	CENTRAL	DORSET	320	45°13'25" 78°55'51"
000002-02-01-3021	CENTRAL	NITHGROVE	325	45°27'03" 78°04'12"
000002-02-01-3031	CENTRAL	BALSAM LAKE	259	44°17'45" 78°51'22"
000002-02-01-3041	CENTRAL	RAVEN LAKE	274	44°36'40" 78°54'43"
000002-02-01-4011	SOUTHEASTERN	CHARLESTON LAKE	92	44°29'50" 76°02'40"
000002-02-01-4021	SOUTHEASTERN	RAILTON	152	44°22'44" 76°34'45"
000002-02-01-4031	SOUTHEASTERN	GRAHAM LAKE	130	44°34'50" 76°51'45"
000002-02-01-4081	SOUTHEASTERN	GOLDEN LAKE	160	45°36'48" 77°12'03"
000002-02-01-4101	SOUTHEASTERN	WILMER	125	44°26'23" 76°31'50"
000002-02-01-5001	NORTHEASTERN	GOMGANDA	343	47°59'04" 80°46'32"
C00002-02-01-5171	NORTHEASTERN	HIGH FALLS	215	46°22'55" 81°37'43"
630002-02-01-6051	NORTHWESTERN	FERNBERG	506	47°56'51" 91°29'26"
000002-02-01-6071	NORTHWESTERN	QUETICO CENTRE	420	48°24'44" 91°12'08"
000002-02-01-6131	NORTHWESTERN	DAWSON	381	48°33'38" 89°38'60"
000002-02-01-7011	QUEBEC	SUTTON	243	45°04'35" 72°40'35"
000002-02-01-7021	PENNSYLVANIA	PENN. STATE	120	40°47'18" 77°56'47"

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS-ACIDIC PRECIPITATION IN ONTARIO STUDY
 DAILY AMBIENT AIR SITES

STATION ID	MOE REGION	STATION NAME	ELEV (M)	LATITUDE (NORTH)		LONGITUDE (WEST)		WMM GRID CO-ORDINATES (NORTHING/EASTING)
				(NORTH)	(WEST)	(NORTH)	(WEST)	
00002-21-21-1011	SOUTHWESTERN	LONGWOODS	259	42°53'03"	61°28'40"	44°36'49"	460756	
00002-21-21-7011	SOUTHWESTERN	WILLESLEY	344	43°28'05"	60°45'33"	4812606	519481	
00002-21-21-2031	SOUTHWESTERN	EGRETT	253	44°13'57"	79°46'53"	489202	597322	
00002-21-21-3011	CENTRAL	DORSET	320	45°13'25"	78°55'51"	500956	662329	
00002-21-21-3031	CENTRAL	BALSAM LAKE	259	44°37'45"	78°51'22"	494376	670063	
00002-21-21-4011	SOUTHEASTERN	CHARLESTON LAKE	92	44°29'50"	76°02'40"	492714	416963	
00002-21-21-5061	NORTHEASTERN	COWGANDA	343	47°39'04"	80°46'32"	5277329	516647	
00002-21-21-5111	NORTHEASTERN	HIGH FALLS	215	46°22'55"	81°32'43"	513612	458068	
00002-21-21-6051	NORTHWESTERN	THORNBERG	506	47°56'51"	91°29'26"	5311349	612714	
00002-21-21-7021	PENNSYLVANIA	PENN. STATE	120	40°47'18"	77°56'47"	4519229	251390	

PART III

SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY STATION

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM

#06

PERIOD OF REPORT : JAN 3,88 TO DEC 29,88

PRECIP.	CONDUCT.		PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
	MH	UMHO/CM					
* OF SAMPLES	128	122	77	125	125	125	126
MAXIMUM	72.0	87.0	7.5	7.8	0.3311	0.3400	21.30
MINIMUM	0.1	1.0	3.7	3.5	0.0000	0.0119	0.00
RANGE	71.9	86.0	3.8	4.3	0.3311	0.3281	21.30
ARITH. MEAN	5.9	25.9	4.5	4.7	0.0421	0.0681	2.73
ARITH. STD. DEV	6.8	18.7	0.7	1.1	0.0169	0.0532	2.71
GEOM. MEAN	2.7	19.0	4.8	4.8	0.3417	0.0539	1.86
1ST QUARTILE	1.1	10.8	4.1	4.2	0.0079	0.0279	0.95
2ND QUARTILE	3.3	22.0	4.3	4.5	0.0306	0.0527	2.02
3RD QUARTILE	7.2	36.8	4.6	5.1	0.0646	0.0926	3.55
VOL. WGT. MEAN	*****	25.9	*****	*****	0.0488	0.0762	3.01
NITRATE AS N MG/L	CALCIUM		CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N MG/L
* OF SAMPLES	122	116	124	116	116	115	122
MAXIMUM	2.620	5.500	1.270	0.700	0.805	0.705	1.640
MINIMUM	0.000	0.020	0.000	0.000	0.000	0.005	0.000
RANGE	2.620	5.480	1.270	0.700	0.805	0.700	1.640
ARITH. MEAN	0.640	0.575	0.222	0.062	0.053	0.065	0.405
ARITH. STD. DEV	0.493	0.707	0.243	0.083	0.099	0.115	0.391
GEOM. MEAN	0.459	0.339	0.154	0.045	0.035	0.047	0.238
1ST QUARTILE	0.255	0.160	0.060	0.015	0.015	0.020	0.121
2ND QUARTILE	0.515	0.355	0.125	0.040	0.050	0.147	0.290
3RD QUARTILE	0.930	0.730	0.310	0.070	0.055	0.105	0.530
VOL. WGT. MEAN	0.569	0.421	0.163	0.052	0.054	0.062	0.410

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM #11

PERIOD OF REPORT : JAN 4,88 TO DEC 29,88

PRECIP.	CONDUCT.		PH		FREE H+		TOTAL H+		SULPHATE	
	MM	UHHO/CH	FIELD	LAB	LAB	MG/L	GRAN	MG/L	MG/L	MG/L
# OF SAMPLES	:	104	91	33	93	95	93	0.2800	13.00	95
MAXIMUM	:	38.6	94.5	5.2	7.3	0.2818	0.0000	0.0164	0.00	38.6
MINIMUM	:	0.2	2.0	3.6	3.6	0.0000	0.0000	0.0000	0.00	0.2
RANGE	:	38.4	92.5	1.6	3.8	0.2818	0.3636	0.3636	13.00	92.5
ARITH. MEAN	:	7.2	31.8	4.5	4.4	0.0651	0.0953	0.0953	3.55	7.2
ARITH. STD. DEV	:	8.2	22.6	0.9	0.6	0.0582	0.0705	0.0705	2.75	8.2
GEOH. MEAN	:	3.7	23.6	4.3	4.4	0.0385	0.0750	0.0750	2.50	3.7
1ST QUARTILE	:	1.6	13.5	4.0	4.1	0.0254	0.0460	0.0460	1.43	1.6
2ND QUARTILE	:	4.4	24.5	4.2	4.3	0.0501	0.0731	0.0731	2.45	4.4
3RD QUARTILE	:	9.2	43.8	4.5	4.6	0.0822	0.1180	0.1180	4.57	9.2
VOL. WGT. MEAN	:	*****	22.5	*****	*****	0.0454	0.0704	0.0704	2.47	22.5
MITRALE AS H			CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM		AMMONIUM	
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	AS N	MG/L
# OF SAMPLES	:	95	91	95	91	91	91	91	94	95
MAXIMUM	:	3.460	3.520	1.530	0.790	0.255	0.690	0.690	1.720	3.460
MINIMUM	:	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.020
RANGE	:	3.440	3.520	1.530	0.790	0.255	0.690	0.690	1.694	3.440
ARITH. MEAN	:	0.757	0.392	0.275	0.168	0.035	0.091	0.091	0.407	0.757
ARITH. STD. DEV	:	0.643	0.521	0.333	0.102	0.055	0.151	0.151	0.346	0.643
GEOH. MEAN	:	0.526	0.229	0.210	0.056	0.030	0.055	0.055	0.282	0.526
1ST QUARTILE	:	0.310	0.060	0.050	0.010	0.012	0.012	0.012	0.180	0.310
2ND QUARTILE	:	0.560	0.200	0.160	0.035	0.020	0.025	0.025	0.180	0.560
3RD QUARTILE	:	1.055	0.540	0.310	0.087	0.040	0.100	0.100	0.556	1.055
VOL. WGT. MEAN	:	0.425	0.203	0.177	0.054	0.023	0.037	0.037	0.064	0.425

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DAWSON/DAILY/AEROCHEM./6131

PERIOD OF REPORT : DEC 31,87 TO DEC 30,88

PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	MM	UHNO/CM					
MAXIMUM	104	78	0	77	77	77	78
MINIMUM	46.6	95.5	*****	7.4	0.0851	0.1220	7.55
RANGE	0.1	1.0	*****	4.1	0.0000	0.0153	0.00
ARITH. MEAN	46.5	94.5	*****	3.3	0.0851	0.1067	7.55
ARITH. STD. DEV	7.4	13.2	*****	5.2	0.0148	0.0359	1.51
GEOM. MEAN	8.0	13.1	*****	0.7	0.0183	0.0222	1.48
1ST QUARTILE	3.6	9.4	*****	5.2	0.0060	0.0313	1.03
2ND QUARTILE	2.0	5.8	*****	4.7	0.0050	0.0217	0.63
3RD QUARTILE	5.2	10.0	*****	5.2	0.0064	0.0256	1.02
VOL. WGT. MEAN	9.6	17.0	*****	5.5	0.0180	0.0390	1.85
	*****	10.8	*****	0.0116	0.0325	1.37	
NITRATE							
# OF SAMPLES	78	79	/8	79	79	78	79
MAXIMUM	2,000	1,800	2,730	0,250	0,315	1,740	4,130
MINIMUM	0,000	0,000	0,000	0,000	0,000	0,000	0,000
RANGE	2,000	1,800	3,730	0,250	0,315	1,710	4,130
ARITH. MEAN	0,353	0,284	0,159	0,046	0,046	0,105	0,360
GEOM. MEAN	0,316	0,365	0,431	0,052	0,051	0,221	0,524
1ST QUARTILE	0,259	0,240	0,164	0,050	0,043	0,060	0,232
2ND QUARTILE	0,165	0,060	0,030	0,008	0,015	0,020	0,100
3RD QUARTILE	0,260	0,140	0,080	0,025	0,025	0,040	0,260
VOL. WGT. MEAN	0,435	0,300	0,150	0,045	0,065	0,108	0,511

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***: INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AEROCHEM

#06

PERIOD OF REPORT : DEC 31,87 TO DEC 31,88

PRECIP.	CONDUCT.		PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
	MMHO/CM	MMHO/CM					
* OF SAMPLES	:	218	186	119	193	194	189
MAXIMUM	:	32.4	95.5	6.5	7.4	0.4266	0.5720
MINIMUM	:	0.0	2.0	3.4	3.4	0.0000	0.0116
RANGE	:	32.4	93.5	3.1	4.1	0.4265	0.5104
ARITH. MEAN	:	4.7	25.7	4.4	4.6	0.0494	0.0756
ARITH. STD. DEV	:	5.9	19.1	0.4	0.7	0.0517	0.0590
GEOM. MEAN	:	1.8	18.9	4.4	4.5	0.0258	0.0598
1ST QUARTILE	:	0.6	10.8	4.1	4.2	0.0158	0.0367
2ND QUARTILE	:	2.2	22.3	4.3	4.4	0.0355	0.0604
3RD QUARTILE	:	6.6	35.5	4.6	4.8	0.0684	0.0978
VOL. MGT. MEAN	:	*****	24.7	*****	*****	0.0484	0.0727
* OF SAMPLES	:	189	170	188	170	171	195
MAXIMUM	:	4,200	2,220	10,860	0,475	0,885	2,150
MINIMUM	:	0,000	0,000	0,000	0,000	0,000	0,000
RANGE	:	4,200	2,220	10,860	0,475	0,885	2,150
ARITH. MEAN	:	0,630	0,320	0,300	0,045	0,043	0,110
ARITH. STD. DEV	:	0,594	0,443	0,844	0,066	0,076	0,335
GEOM. MEAN	:	0,415	0,209	0,181	0,042	0,036	0,363
1ST QUARTILE	:	0,200	0,060	0,065	0,010	0,015	0,067
2ND QUARTILE	:	0,490	0,140	0,135	0,020	0,025	0,070
3RD QUARTILE	:	0,920	0,320	0,295	0,050	0,050	0,240
VOL. MGT. MEAN	:	0,511	0,211	0,172	0,031	0,029	0,330

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EGBERT

PERIOD OF REPORT : NOV 29,86

TO DEC 31,88

PRECIP.	CONDUCT.	PH FIELD	PH LAB	FRIC H+	TOTAL H+	SULPHATE
MM	UMHO/CM	8	0	13	12	9
# OF SAMPLES	:	19	***	***	0.0740	3.50
MAXIMUM	:	7.8	25.0	6.3	0.0490	0.0127
MINIMUM	:	0.2	4.0	4.3	0.0006	0.10
RANGE	:	7.6	21.0	1.9	0.0484	3.40
ARITH. MEAN	:	1.6	11.0	4.9	0.0203	0.96
ARITH. STD. DEV	:	2.3	7.0	8.8	0.0174	0.0208
GEOM. MEAN	:	0.9	9.3	4.9	0.0121	1.09
1ST QUARTILE	:	0.4	6.3	4.4	0.0062	0.60
2ND QUARTILE	:	0.6	8.3	4.8	0.0128	0.32
3RD QUARTILE	:	1.1	15.0	5.1	0.0293	0.52
VOL. WGT. MEAN	:	*****	10.4	*****	0.0430	0.70
					1.08	1.08
NITRATE AS N	MG/L	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM
		MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	9	9	9	9	9
MAXIMUM	:	0.620	1.580	0.780	0.320	0.805
MINIMUM	:	0.090	0.080	0.000	0.010	0.005
RANGE	:	0.530	1.500	0.780	0.310	0.035
ARITH. MEAN	:	0.316	0.444	0.267	0.045	0.140
ARITH. STD. DEV	:	0.153	0.470	0.227	0.071	0.104
GEOM. MEAN	:	0.278	0.301	0.196	0.019	0.092
1ST QUARTILE	:	0.215	0.160	0.062	0.017	0.036
2ND QUARTILE	:	0.305	0.230	0.160	0.016	0.086
3RD QUARTILE	:	0.335	0.460	0.290	0.010	0.150
VOL. WGT. MEAN	:	0.268	0.263	0.279	0.015	0.100
					0.020	0.322
					0.043	0.171
ANHYDRONIUM AS N	MG/L					

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APTOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY/AEROCHEM

#16

PERIOD OF REPORT : JAN 1,88 TO DEC 31,88

PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H ⁺ L/L ₁	TOTAL H ⁺ GR/L	SULPHATE MG/L
MM	UHIO/CM	112	108	1.08	108	1.14
# OF SAMPLES	153	42.5	7.3	0.0661	0.0956	6.10
MAXIMUM	69.2	0.5	4.2	0.0001	0.3103	0.00
MINIMUM	0.1	42.0	3.1	0.0660	0.0855	8.10
RANGE	69.1	8.9	5.6	0.0079	0.0262	1.11
ARITH. MEAN	5.8	7.8	5.6	0.0142	0.0142	1.25
ARITH. STD. DEV	9.9	6.4	5.6	0.0022	0.0236	0.72
GEOM. MEAN	1.7	0.5	3.5	5.1	0.0004	0.0175
1ST QUARTILE	2.3	7.0	5.4	0.0036	0.0206	0.80
2ND QUARTILE	6.4	11.0	6.4	0.0087	0.0292	1.25
3RD QUARTILE			*****	0.0076	0.0260	0.92
VOL. WGT. MEAN			*****			
NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	114	106	114	106	106	106
MAXIMUM	1.590	1.900	0.840	0.350	0.320	1.830
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	1.590	1.900	0.840	0.330	0.320	1.830
ARITH. MEAN	0.300	0.256	0.094	0.043	0.044	0.077
ARITH. STD. DEV	0.265	0.360	0.106	0.065	0.055	0.220
GEOM. MEAN	0.211	0.216	0.116	0.054	0.058	0.157
1ST QUARTILE	0.115	0.140	0.040	0.010	0.012	0.066
2ND QUARTILE	0.240	0.140	0.070	0.020	0.025	0.030
3RD QUARTILE	0.400	0.260	0.120	0.055	0.050	0.055
VOL. WGT. MEAN	0.227	0.151	0.054	0.025	0.031	0.262

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 APTOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION

STATION =GONGANDA AEROCHM SITE NO.1									
	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD, PH	LAB, PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L		
# OF SAMPLES	:	167.0	167	167	167	167	167	167	
MAXIMUM	:	37.0	80.00	5.250	7.64	31.40	1.98	0.30	
MINIMUM	:	0.0	1.00	3.560	3.55	0.10	0.00	0.00	
ARITH. MEAN	:	4.2	17.58	4.446	4.77	2.11	0.34	0.15	
ARITH. STD. DEV	:	6.2	16.78	0.397	0.67	3.62	0.41	0.16	
GEOM. MEAN	:	4.2	11.18	4.428	4.73	1.14	0.19	0.12	
1ST QUARTILE	:	0.2	5.00	4.140	4.32	0.50	0.03	0.04	
2ND QUARTILE	:	1.3	13.50	4.466	4.66	1.20	0.19	0.10	
3RD QUARTILE	:	5.8	24.13	4.720	5.13	2.80	0.47	0.24	
VOL. WGT. MEAN	:	1.4	14.23	4.493	4.77	1.53	0.25	0.12	
MISSING VALUES	:	32.0	79	100	79	78	78	83	
CHLORIDE									
	MAGNESIUM MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FRESH+ LAB UG/L		
# OF SAMPLES	:	167	167	167	167	167	167	167	
MAXIMUM	:	0.66	0.170	0.290	0.540	2.180	297.00	167.00	
MINIMUM	:	0.00	0.000	0.000	0.000	0.000	12.30	28.84	
ARITH. MEAN	:	0.11	0.024	0.040	0.068	0.217	61.40	0.02	
ARITH. STD. DEV	:	0.12	0.028	0.047	0.083	0.307	52.57	48.31	
GEOM. MEAN	:	0.19	0.020	0.028	0.044	0.110	47.91	36.53	
1ST QUARTILE	:	0.02	0.005	0.010	0.016	0.030	28.12	7.47	
2ND QUARTILE	:	0.08	0.015	0.025	0.040	0.126	46.60	21.64	
3RD QUARTILE	:	0.16	0.035	0.050	0.092	0.288	77.67	47.86	
VOL. WGT. MEAN	:	0.06	0.019	0.023	0.033	0.192	52.22	47.86	
MISSING VALUES	:	77	83	84	83	74	79	79.00	

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : HIGH FALLS
 PERIOD OF REPORT : APR 14, 88 TO DEC 31, 88

PRECIP.	CONDUCT.	PH UNHO/CH	PH FIELD	PH LAB	FREE H ⁺ MG/L	TOTAL H ⁺ GRAN MG/L	SULPHATE MG/L
HM	HM	114	79	60	91	91	82
# OF SAMPLES		38.2	89.0	5.8	7.4	0.2754	14.20
MAXIMUM		0.0	2.0	3.6	3.6	0.0000	0.0140
MINIMUM		38.2	87.0	2.3	3.8	0.2754	0.3000
RANGE		5.0	25.1	4.3	4.7	0.0504	14.20
ARITH. MEAN		7.8	21.5	0.4	0.8	0.0592	0.0686
ARITH. STD. DEV		GEOM. MEAN	16.8	4.3	4.6	0.0576	2.93
1ST QUARTILE		1.7	8.3	4.1	4.2	0.0514	1.74
2ND QUARTILE		2.0	20.3	4.3	4.5	0.0275	0.0550
3RD QUARTILE		5.5	31.5	4.5	4.9	0.0624	7.75
VOL. WGT. MEAN		*****	23.9	*****	*****	0.0766	2.51
NITRATE AS N MG/L	CALCIUM MG/L	NITRATE AS N MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	81	84	82	84	83	83	86
MAXIMUM	2.900	1.680	0.900	0.220	0.805	0.805	1.760
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	2.900	1.680	0.900	0.220	0.805	0.805	1.760
ARITH. MEAN	0.569	0.230	0.172	0.039	0.083	0.083	0.1960
ARITH. STD. DEV	0.594	0.288	0.170	0.044	0.138	0.138	0.377
GEOM. MEAN	0.358	0.171	0.180	0.039	0.055	0.055	0.473
1ST QUARTILE	0.175	0.060	0.065	0.010	0.025	0.030	0.193
2ND QUARTILE	0.370	0.120	0.120	0.020	0.060	0.060	0.380
3RD QUARTILE	0.750	0.370	0.350	0.157	0.124	0.105	0.570
VOL. WGT. MEAN	0.490	0.490	0.490	0.027	0.047	0.047	0.542

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHEM

#02

PERIOD OF REPORT : JAN 13, 88 TO DEC 28, 88

PRECIP.	CONDUCT.		PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
	MM	UHHO/CM					
# OF SAMPLES	:	120	99	70	107	107	107
MAXIMUM	:	69.0	88.5	7.4	0.2692	0.3150	13.60
MINIMUM	:	0.1	1.5	3.0	0.0000	0.0044	0.20
RANGE	:	68.9	87.0	4.4	0.2691	0.3106	13.40
ARITH. MEAN	:	7.4	33.9	4.3	0.0456	0.0727	4.00
ARITH. STD. DEV	:	10.7	20.7	0.9	0.0548	0.0617	2.76
GEOM. MEAN	:	3.7	27.3	4.2	0.0077	0.0512	3.02
1ST QUARTILE	:	1.6	17.0	3.8	4.2	0.0235	2.02
2ND QUARTILE	:	3.7	29.8	4.1	4.5	0.0524	3.27
3RD QUARTILE	:	9.1	46.5	4.5	6.0	0.1025	5.48
VOL. WGT. MEAN	:	*****	29.8	*****	0.0513	0.0776	3.41
NITRATE AS N							
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	104	93	106	93	94	94
MAXIMUM	:	4.490	5.120	3.850	0.985	1.060	1.510
MINIMUM	:	0.000	0.000	0.000	0.000	0.010	0.000
RANGE	:	4.490	5.120	3.850	0.985	1.050	1.510
ARITH. MEAN	:	0.862	0.843	0.436	0.152	0.145	0.156
ARITH. STD. DEV	:	0.709	0.897	0.540	0.180	0.175	0.206
GEOM. MEAN	:	0.627	0.531	0.315	0.098	0.086	0.098
1ST QUARTILE	:	0.370	0.240	0.150	0.042	0.047	0.266
2ND QUARTILE	:	0.630	0.570	0.280	0.092	0.075	0.500
3RD QUARTILE	:	1.230	0.950	0.460	0.163	0.165	0.883
VOL. WGT. MEAN	:	0.573	0.437	0.234	0.081	0.077	0.092

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHEM

#01

PERIOD OF REPORT : JAN 3,88 TO DEC 30,88

PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB	TOTAL H+ GRAN	SULPHATE
MM	UMHO/CH	MM/L	MM/L	MM/L	MM/L	MM/L
# OF SAMPLES	129	101	69	112	11	109
MAXIMUM	40.2	86.5	6.7	8.1	0.2884	0.4160
MINIMUM	0.1	2.0	3.1	3.5	0.0000	0.0000
RANGE	40.1	84.5	3.6	4.6	0.2884	0.4180
ARITH. MEAN	5.1	34.8	4.3	4.9	0.0544	0.0827
ARITH. STD. DEV	6.9	20.2	0.8	1.2	0.0568	0.0621
GEOR. MEAN	2.3	28.6	4.2	4.8	0.0128	0.0627
1ST QUARTILE	1.0	18.0	3.7	4.1	0.0079	0.0296
2ND QUARTILE	2.2	29.8	4.1	4.4	0.0442	0.0703
3RD QUARTILE	6.8	48.5	4.5	5.1	0.0776	0.1180
VOL. WGT. MEAN	*****	30.9	*****	0.0570	0.0837	3.53
NITRATE AS N	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N
MM/L	MM/L	MM/L	MM/L	MM/L	MM/L	MM/L
# OF SAMPLES	109	100	109	99	99	111
MAXIMUM	3,130	4,360	1,500	0.920	0.885	3,250
MINIMUM	0	0.000	0.000	0.000	0.000	0.000
RANGE	3,130	4,360	1,500	0.930	0.885	3,250
ARITH. MEAN	0.884	0.745	0.356	0.130	0.088	0.870
ARITH. STD. DEV	0.631	0.771	0.296	0.149	0.105	0.752
GEOR. MEAN	0.664	0.430	0.111	0.086	0.063	0.617
1ST QUARTILE	0.385	0.160	0.195	0.030	0.025	0.535
2ND QUARTILE	0.745	0.460	0.245	0.090	0.062	0.642
3RD QUARTILE	1.270	1.130	0.465	0.175	0.118	0.155
VOL. WGT. MEAN	0.614	0.444	0.266	0.077	0.075	0.533

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/AEROCHEM
PERIOD OF REPORT : DEC 31, 87 TO DEC 31, 88

PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE	
						MG/L	MG/L
OF SAMPLES	HM	110	83	120	120	115	11.50
MAXIMUM		93.0	7.1	7.5	0.3560	0.0154	0.10
MINIMUM		0.0	2.0	3.6	0.0000	0.3406	11.20
RANGE		90.4	9.0	5.5	0.2818	0.6677	2.39
MEAN		50.1	24.1	4.6	0.0417	0.0422	2.03
RITH. MEAN		6.0	18.5	0.7	0.0491	0.0491	1.66
RITH. STD. DEV		2.3	17.2	4.5	0.0169	0.0541	1.66
COM. MEAN		2.9	9.0	4.2	0.0106	0.0308	0.95
1ST QUARTILE		2.8	19.5	4.3	0.0316	0.0544	1.98
2ND QUARTILE		7.0	34.0	4.8	0.0624	0.0924	3.27
3RD QUARTILE		24.0	*****	5.0	0.0442	0.0711	2.46
DL. WGT. MEAN		*****	*****	*****	*****	*****	*****
PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	AMMONIUM	
						AS N	MG/L
OF SAMPLES	HM	110	83	120	120	123	3.700
MAXIMUM		93.0	7.1	7.5	0.310	0.670	0.006
MINIMUM		0.0	2.0	3.6	0.010	0.005	0.006
RANGE		90.4	9.0	5.5	0.275	0.500	3.694
MEAN		50.1	24.1	4.6	0.060	0.057	0.469
RITH. MEAN		6.0	18.5	0.7	0.052	0.059	0.573
RITH. STD. DEV		2.3	17.2	4.5	0.045	0.040	0.268
COM. MEAN		2.9	9.0	4.2	0.020	0.025	0.115
1ST QUARTILE		2.8	19.5	4.3	0.020	0.030	0.113
2ND QUARTILE		7.0	34.0	4.8	0.045	0.050	0.414
3RD QUARTILE		24.0	*****	5.0	0.029	0.039	0.050
DL. WGT. MEAN		*****	*****	*****	*****	*****	*****

NOTE (1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03
 PERIOD OF REPORT : DEC 31, 87 TO DEC 30, 88

PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H ⁺ LAB MG/L	TOTAL H ⁺ GRAN MG/L	SULPHATE MG/L
MM	UMHO/CM					
* OF SAMPLES	173	132	81	14.8	15.0	14.2
MAXIMUM	82.0	6.3	7.8	0.4074	0.4010	15.60
MINIMUM	0.1	5.0	3.4	0.0000	0.0091	0.25
RANGE	38.3	80.0	3.3	0.4074	0.3919	14.35
ARITH. MEAN	5.42	24.9	6.9	0.0377	0.0620	3.19
ARITH. STD. DEV	6.9	17.0	0.6	0.0561	0.0602	2.84
GEOM. MEAN	2.5	19.4	9.2	0.0057	0.0453	2.30
1ST QUARTILE	0.9	12.8	5.8	0.0002	0.0201	1.47
2ND QUARTILE	2.3	20.5	4.1	0.0232	0.0494	2.45
3RD QUARTILE	5.6	34.3	4.4	0.0698	0.0762	4.42
VOL. WGT. MEAN	*****	24.2	*****	0.0624	0.0673	2.90
NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
* OF SAMPLES	142	138	142	138	137	151
MAXIMUM	2.750	4.180	1.410	0.815	1.100	0.750
MINIMUM	0.010	0.000	0.000	0.000	0.005	0.000
RANGE	2.740	4.180	1.410	0.815	1.100	0.745
ARITH. MEAN	0.668	0.643	0.235	0.129	0.052	0.090
ARITH. STD. DEV	0.500	0.723	0.210	0.163	0.099	0.109
GEOM. MEAN	0.448	0.374	0.202	0.078	0.036	0.056
1ST QUARTILE	0.285	0.180	0.090	0.030	0.015	0.032
2ND QUARTILE	0.535	0.410	0.170	0.075	0.030	0.050
3RD QUARTILE	0.890	0.640	0.535	0.152	0.057	0.110
VOL. WGT. MEAN	0.512	0.392	0.197	0.080	0.036	0.093

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PENN. STATE

PERIOD OF REPORT : MAY 16, 88

TO DEC 28, 88

PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H ⁺ LAB	TOTAL H ⁺ GRAN	SULPHATE
MM	UMHO/CM	MM	MM	MG/L	MG/L	MG/L
# OF SAMPLES :	50	35	0	40	40	36
MAXIMUM :	30.4	94.5	*****	5.6	0.2089	7.85
MINIMUM :	0.1	3.0	*****	3.7	0.0027	0.150
RANGE :	30.3	91.5	*****	1.9	0.2062	7.35
ARITH. MEAN :	7.1	28.8	*****	4.4	0.0587	0.0068
ARITH. STD. DEV :	6.9	18.8	*****	0.4	0.047/	2.79
GEOM. MEAN :	2.6	23.4	*****	4.3	0.0431	2.27
1ST QUARTILE :	0.6	16.0	*****	4.1	0.0363	0.0549
2ND QUARTILE :	3.0	24.8	*****	4.3	0.0562	1.52
3RD QUARTILE :	8.8	38.5	*****	4.4	0.0759	2.50
VOL. WGT. MEAN :	*****	24.5	*****	0.0514	0.0728	2.38
NITRATE AS N	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N
MM/L	MM/L	MM/L	MM/L	MM/L	MM/L	MM/L
# OF SAMPLES :	36	37	36	37	37	40
MAXIMUM :	1.280	0.880	1.170	0.170	0.145	1.440
MINIMUM :	0.070	0.000	0.000	0.000	0.005	0.020
RANGE :	1.210	0.880	1.170	0.170	0.145	1.420
ARITH. MEAN :	0.485	0.192	0.206	0.034	0.023	0.238
ARITH. STD. DEV :	0.334	0.217	0.226	0.042	0.039	0.281
GEOM. MEAN :	0.377	0.143	0.164	0.047	0.034	0.155
1ST QUARTILE :	0.215	0.040	0.060	0.008	0.015	0.085
2ND QUARTILE :	0.400	0.100	0.130	0.015	0.022	0.155
3RD QUARTILE :	0.640	0.260	0.250	0.042	0.055	0.266
VOL. WGT. MEAN :	0.337	0.092	0.109	0.016	0.016	0.189

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/AEROCHEM

#14

PERIOD OF REPORT : JAN 7,88 TO DEC 28,88

PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE	
						MG/L	MG/L
# OF SAMPLES	:	84	68	0	69	6.9	6.6
MAXIMUM	:	140.0	62.0	*****	7.2	0.0871	0.1250
MINIMUM	:	0.1	1.0	*****	4.1	0.0001	0.1054
RANGE	:	139.9	61.0	*****	3.2	0.0870	0.1076
ARITH. MEAN	:	10.7	11.7	*****	5.3	0.0122	0.0735
ARITH. STD. DEV	:	16.5	11.0	*****	0.7	0.0167	0.0202
GEOH. MEAN	:	5.6	8.5	*****	5.3	0.0645	0.0295
1ST QUARTILE	:	3.7	6.0	*****	4.8	0.0014	0.0207
2ND QUARTILE	:	6.6	8.0	*****	5.2	0.0060	0.0268
3RD QUARTILE	:	12.3	14.5	*****	5.8	0.0150	0.0740
VOL. WGT. MEAN	:	*****	7.6	*****	*****	0.0088	0.0288
NITRATE	AS N	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	:	68	68	68	68	68	6.9
MAXIMUM	:	2.210	3.020	0.550	0.495	0.325	0.690
MINIMUM	:	0.020	0.000	0.000	0.000	0.000	1.690
RANGE	:	2.190	3.020	0.550	0.495	0.325	0.690
ARITH. MEAN	:	0.363	0.310	0.102	0.047	0.049	0.277
ARITH. STD. DEV	:	0.305	0.518	0.109	0.080	0.061	0.171
GEOH. MEAN	:	0.245	0.187	0.118	0.064	0.048	0.238
1ST QUARTILE	:	0.175	0.070	0.040	0.010	0.015	0.108
2ND QUARTILE	:	0.245	0.140	0.060	0.075	0.050	0.278
3RD QUARTILE	:	0.425	0.320	0.125	0.042	0.057	0.517
VOL. WGT. MEAN	:	0.222	0.169	0.057	0.025	0.051	0.254

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/AEROCHEM

\$10

PERIOD OF REPORT : JAN 8,88 TO DEC 29,88

PRECIP.	CONDUCT.	PH FIELD	PH LAB	SULPHATE		TOTAL H+ GRAN MG./L	AMMONIUM AS N MG/L
				FREE H+ LAB MG/L	SULPHATE MG/L		
# OF SAMPLES	60	48	21	51	51	51	53
MAXIMUM	28.2	90.0	7.0	7.5	0.2884	0.5630	14.25
MINIMUM	0.2	3.0	3.7	3.5	0.0000	0.0000	0.40
RANGE	28.0	87.0	3.3	3.9	0.2884	0.3630	13.85
ARITH. MEAN	6.4	34.6	4.5	4.5	0.1017	0.1017	4.46
ARITH. STD. DEV	6.4	21.1	0.9	0.9	0.0618	0.0811	3.28
GEOM. MEAN	3.7	27.8	4.5	4.4	0.0311	0.0828	3.27
1ST QUARTILE	2.0	19.3	4.1	4.0	0.0343	0.0516	1.93
2ND QUARTILE	4.2	27.3	4.2	4.3	0.0513	0.0827	3.21
3RD QUARTILE	8.0	47.8	4.4	4.4	0.0873	0.1150	6.57
VOL. WGT. MEAN	30.0	*****	*****	*****	0.0565	0.0868	3.53
NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L		
# OF SAMPLES	53	50	53	50	51	51	50
MAXIMUM	3.220	4.500	2.320	0.865	0.420	1.710	1.690
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.084
RANGE	3.220	4.500	2.320	0.865	0.420	1.710	1.606
ARITH. MEAN	0.301	0.743	0.528	0.103	0.077	0.126	0.632
ARITH. STD. DEV	0.728	0.657	0.428	0.145	0.091	0.256	0.455
GEOM. MEAN	0.667	0.489	0.192	0.062	0.056	0.078	0.474
1ST QUARTILE	0.330	0.210	0.090	0.025	0.017	0.030	0.250
2ND QUARTILE	0.715	0.480	0.145	0.065	0.045	0.065	0.453
3RD QUARTILE	1.225	0.870	0.380	0.103	0.080	0.105	0.483
VOL. WGT. MEAN	0.652	0.452	0.206	0.056	0.048	0.087	0.488

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/AEROCHEM

#05

PERIOD OF REPORT : DEC 31, 87 TO DEC 31, 88

PRECIP.	CONDUCT.	PH		TOTAL H+		SULPHATE	
		F TLLD	LAB	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	MM	132	71	137	137	136	12.60
MAXIMUM		90.5	6.9	7.6	0.4169	0.5140	0.0000
MINIMUM		0.5	3.8	3.4	0.0000	0.0117	0.00
RANGE		90.0	3.1	4.4	0.4169	0.5023	1.40
ARITH. MEAN		26.2	4.5	4.9	0.0468	0.0724	2.62
ARITH. STD. DEV		20.2	0.6	1.0	0.0600	0.0710	2.23
GEOM. MEAN		18.4	4.5	4.8	0.0132	0.0521	1.06
1ST QUARTILE		10.0	4.2	4.2	0.0247	1.00	
2ND QUARTILE		22.0	4.4	4.5	0.0279	0.0520	1.95
3RD QUARTILE		36.8	4.7	5.3	0.0605	0.0927	5.62
VOL. WGT. MEAN	*****	28.1	*****	0.0469	0.0747	2.88	
NITRATE AS N		CALCIUM		CHLORIDE		MAGNESIUM	
MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	134	124	137	124	123	124	140
MAXIMUM	2.630	3.440	1.720	0.430	0.445	1.310	1.090
MINIMUM	0.020	0.000	0.000	0.000	0.000	0.000	0.004
RANGE	2.610	3.440	1.720	0.430	0.445	1.310	1.076
ARITH. MEAN	0.615	0.523	0.221	0.057	0.046	0.046	0.435
ARITH. STD. DEV	0.525	0.674	0.264	0.074	0.064	0.150	0.458
GEOM. MEAN	0.395	0.312	0.157	0.042	0.054	0.054	0.229
1ST QUARTILE	0.205	0.120	0.065	0.010	0.010	0.020	0.138
2ND QUARTILE	0.490	0.260	0.140	0.055	0.035	0.057	0.256
3RD QUARTILE	0.855	0.620	0.275	0.067	0.050	0.100	0.485
VOL. WGT. MEAN	0.518	0.352	0.132	0.044	0.026	0.045	0.435

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 - APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SUTTON/DAILY/AEROCHEN /7011

PERIOD OF REPORT : DEC 31,87 TO APR 26,88

PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
* OF SAMPLES	76	40	0	36	36	41
MAXIMUM	20.2	91.0	*****	7.2	0.2512	0.3070
MINIMUM	0.1	3.0	*****	3.6	0.0001	0.0149
RANGE	20.1	68.0	*****	3.6	0.2511	0.2921
ARITH. MEAN	3.4	26.8	*****	4.6	0.0228	2.04
ARITH. STD. DEV	4.7	20.2	*****	0.8	0.0684	0.0565
GEOGM. MEAN	1.1	19.7	*****	4.5	0.0270	0.0636
1ST QUARTILE	0.2	11.5	*****	4.2	0.0272	0.0444
2ND QUARTILE	1.3	23.0	*****	4.4	0.0280	0.0657
3RD QUARTILE	4.9	38.8	*****	4.6	0.0661	1.68
VOL. WGT. MEAN	*****	23.3	*****	*****	0.0446	2.40
					0.0682	1.71
NITRATE AS N		CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM
MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
* OF SAMPLES	41	29	41	29	29	40
MAXIMUM	3.100	1.900	1.480	0.365	0.100	0.500
MINIMUM	0.020	0.000	0.020	0.000	0.000	0.000
RANGE	3.080	1.900	1.460	0.365	0.100	0.500
ARITH. MEAN	0.738	0.254	0.219	0.031	0.018	0.204
ARITH. STD. DEV	0.724	0.404	0.278	0.070	0.023	0.297
GEOGM. MEAN	0.461	0.189	0.124	0.083	0.025	0.158
1ST QUARTILE	0.270	0.050	0.055	0.000	0.005	0.042
2ND QUARTILE	0.485	0.120	0.140	0.010	0.010	0.210
3RD QUARTILE	0.960	0.250	0.225	0.027	0.017	0.355
VOL. WGT. MEAN	0.518	0.132	0.118	0.014	0.012	0.244

NOTE (1) : PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
AROS & ACIDIC DEPOSITION IN ONTARIO STUDY

STATION NAME : WELLESLEY/DAILY/AEROCHEM PERIOD OF REPORT : JAN 1-28 TO DEC 31-28 \$04

PRECIP.	CONDUCT.	PH		FREE H ⁺		TOTAL H ⁺ GRAN	SULPHATE MG/L
		FIELD	LAB	LAB	MG/L		
MM	UHNO/CH	122	73	135	125	135	131
1	161	84.0	6.6	7.6	0.4169	18.00	
1	64.9	3.0	3.1	3.4	0.0081	0.20	
1	0.1	54.8	81.0	3.5	4.3	0.3959	17.80
1	5.1	28.7	6.4	5.2	0.0410	0.0630	3.69
1	6.7	19.3	0.8	1.2	0.0615	5.04	
1	22.8	4.3	5.1	0.065	0.0468	2.68	
1	13.0	3.8	4.2	0.0003	0.0227	1.65	
1	1.1	2.0	3.0	0.0204	0.0457	2.57	
1	2.9	23.8	4.2	0.0617	0.0915	4.92	
1	6.0	37.0	4.6	0.0432	0.0675	3.18	
MEAN		26.6	*****				
ST. QUARTILE							
2ND QUARTILE							
3RD QUARTILE							
VOL. WGT. MEAN							
PRECIP.	CONDUCT.	PH		MAGNESIUM		POTASSIUM MG/L	AMMONIUM AS N MG/L
		FIELD	LAB	MG/L	MG/L		
MM	UHNO/CH	115	130	115	114	115	133
1	131	3.200	4.300	1.140	0.910	0.520	5.900
1	0.200	0.000	0.000	0.000	0.000	0.000	0.00
1	0.689	0.671	0.246	0.130	0.0466	0.083	0.807
1	0.576	0.772	0.251	0.171	0.086	0.095	0.697
1	0.488	0.388	0.188	0.077	0.041	0.06	0.579
1	0.285	0.150	0.080	0.025	0.015	0.027	0.330
1	0.555	0.350	0.180	0.067	0.025	0.045	0.590
1	0.895	0.300	0.150	0.197	0.052	0.110	1.095
1	0.508	0.427	0.185	0.087	0.031	0.063	0.574
MEAN							
ST. QUARTILE							
2ND QUARTILE							
3RD QUARTILE							
VOL. WGT. MEAN							

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
SUMMARY STATISTICS OF CONCENTRATION

STATION 711111 WILMER AEROCHEM SITE NO.1										
EQUIVALENT PREC. DEPTH MM	CONDUCT		FIELD PH		LAB. PH		SULFATE		NITRATE	
	UMHO/CM	MM	180	180	180	180	180	180	180	180
# OF SAMPLES	180.0	94.00	5.390	7.64	180	180	16.50	3.45	4.42	4.42
MAXIMUM	32.4	2.0	3.900	3.59			0.20	0.05	0.00	0.00
MINIMUM	0.2	30.56	4.432	4.54			3.04	0.73	0.45	0.45
MEAN	4.3	22.02	0.399	0.73			2.67	0.61	0.64	0.64
STD. DEV	5.4	22.23	4.416	4.49			2.03	0.51	0.25	0.25
SEOM. MEAN	4.3	12.25	4.095	4.11			1.00	0.29	0.10	0.10
1ST QUARTILE	0.4	12.25	4.095	4.11			0.56	0.24	0.24	0.24
2ND QUARTILE	2.2	26.50	4.450	4.31			2.35	1.01	0.57	0.57
3RD QUARTILE	6.4	42.00	4.640	4.76			4.4	0.55	0.28	0.28
VOL. WGT. MEAN	0.4	25.86	4.426	4.51			2.47	0.55	0.55	0.55
MISSING VALUES	2.0	60	167	58			56	57	60	60
CHLORIDE										
	MAGNESIUM		SODIUM		AMMONIUM		ACIDITY GRAN		FRESH+	
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	UG/L	UG/L	UG/L
# OF SAMPLES	180	1.69	1.070	0.340	180	180	1.810	180	335.00	180.00
MAXIMUM	0.00	0.000	0.000	0.000			0.000	15.30	257.04	0.02
MINIMUM	0.26	0.066	0.042	0.102			0.420	87.03	57.62	57.62
MEAN	0.32	0.120	0.052	0.134			0.403	64.85	52.78	52.78
STD. DEV	0.16	0.037	0.031	0.057			0.281	67.50	57.62	57.62
SEOM. MEAN	0.05	0.010	0.015	0.025			0.148	40.87	17.28	17.28
1ST QUARTILE	0.14	0.035	0.027	0.045			0.300	74.98	48.98	48.98
2ND QUARTILE	0.31	0.074	0.045	0.110			0.479	110.25	78.08	78.08
3RD QUARTILE	0.16	0.040	0.026	0.067			0.314	74.66	58.00	58.00
VOL. WGT. MEAN	0.16	0.040	0.026	0.067			0.56	56	58.00	58.00
MISSING VALUES	55	60	60	60						

PART IV

SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/DAILY PRECIPITATION

PERIOD OF REPORT : DEC 31,87 TO DEC 31,88

PRECIP.		CONDUCT.	PH FIELD	PH LAB	FREE H+ MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
HH	UMHO/CM						
# OF SAMPLES	:	648	550	575	575	576	564
MAXIMUM	:	72.0	95.5	7.5	7.8	0.5220	21.30
MINIMUM	:	0.0	0.5	3.4	3.4	0.0116	0.00
RANGE	:	72.0	99.0	4.1	4.4	0.4266	21.30
ARITH. MEAN	:	5.0	25.6	4.5	4.8	0.0451	2.57
ARITH. STD. DEV	:	6.6	19.1	0.6	0.9	0.0510	2.44
GEOH. MEAN	:	2.1	18.5	2.1	2.7	0.0547	1.71
1ST QUARTILE	:	0.8	10.0	4.2	4.2	0.0106	0.90
2ND QUARTILE	:	2.4	22.0	4.3	4.5	0.0324	1.90
3RD QUARTILE	:	6.6	36.0	4.6	5.0	0.0646	3.35
VOL. WGT. MEAN	:	*****	25.6	*****	0.0737	0.0737	2.64
NITRATE AS N MG/L		CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM AS N MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	:	558	518	565	517	518	518
MAXIMUM	:	4.200	5.500	10.460	0.700	0.885	1.310
MINIMUM	:	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	:	4.200	5.500	10.460	0.700	0.885	1.310
ARITH. MEAN	:	0.617	0.422	0.244	0.051	0.049	0.049
ARITH. STD. DEV	:	0.535	0.579	0.525	0.070	0.075	0.135
GEOH. MEAN	:	0.411	0.250	0.166	0.043	0.036	0.035
1ST QUARTILE	:	0.205	0.180	0.170	0.010	0.015	0.025
2ND QUARTILE	:	0.490	0.200	0.130	0.025	0.030	0.045
3RD QUARTILE	:	0.915	0.530	0.285	0.060	0.055	0.110
VOL. WGT. MEAN	:	0.520	0.292	0.156	0.038	0.032	0.058

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHEASTERN REGION/DAILY PRECIPITATION
 PERIOD OF REPORT : APR 11, 88 TO DEC 31, 88

PRECIP.	CONDUCT.		PH FIELD	PH LAB	FREE H ⁺ MG/L	TOTAL H ⁺ GRAN MG/L	SULPHATE MG/L
	MM	UHHO/CM					
* OF SAMPLES	:	262	167	127	179	179	171
MAXIMUM	:	140.0	89.0	5.8	7.6	0.2818	0.3270
MINIMUM	:	0.0	1.0	1.6	3.6	0.0000	0.0125
RANGE	:	140.0	88.0	2.3	4.1	0.2818	0.3097
ARITH. MEAN	:	5.8	21.1	4.4	4.7	0.0426	0.1698
ARITH. STD. DEV	:	15.1	19.5	0.4	0.7	0.0544	0.0617
GEM. MEAN	:	1.2	13.6	4.4	4.7	0.0526	0.139
1ST QUARTILE	:	0.3	5.8	4.1	4.3	0.0091	0.0294
2ND QUARTILE	:	1.4	15.3	4.3	4.6	0.0259	0.3610
3RD QUARTILE	:	5.4	28.8	4.6	5.0	0.0531	0.0808
VOL. WGT. MEAN	:	*****	16.6	*****	0.0331	0.0579	1.69
NITRATE AS N MG/L	CALCIUM		CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
	170	168	172	168	166	168	179
* OF SAMPLES	:	2,900	1,680	0,900	0,220	0,805	0,540
MAXIMUM	:	0.000	0.000	0.000	0.000	0.000	0.000
MINIMUM	:	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	:	2,900	1,680	0,900	0,220	0,805	0,540
ARITH. MEAN	:	0.450	0.192	0.141	0.031	0.061	0.072
ARITH. STD. DEV	:	0.516	0.235	0.147	0.038	0.105	0.078
GEM. MEAN	:	0.282	0.163	0.149	0.041	0.044	0.054
1ST QUARTILE	:	0.085	0.040	0.040	0.010	0.017	0.025
2ND QUARTILE	:	0.300	0.120	0.100	0.020	0.035	0.065
3RD QUARTILE	:	0.595	0.180	0.185	0.040	0.055	0.195
VOL. WGT. MEAN	:	0.323	0.127	0.076	0.021	0.029	0.041

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APTOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1,88 TO DEC 30,88

PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB	TOTAL H+ GRAN	SULPHATE
MM	UMHIO/CM				MG/L	MG/L
* OF SAMPLES	361	258	0	254	254	260
MAXIMUM	140.0	95.5	*****	7.4	0.0871	0.55
MINIMUM	0.1	0.5	*****	4.1	0.0000	0.00
RANGE	139.9	95.0	*****	3.3	0.0871	0.55
ARITH. MEAN	7.5	10.9	*****	5.4	0.0111	1.31
ARITH. STD. DEV	11.5	10.6	*****	0.8	0.0156	1.40
GEOM. MEAN	2.9	7.8	*****	5.4	0.0036	0.0273
1ST QUARTILE	1.1	5.0	*****	4.8	0.0009	0.0196
2ND QUARTILE	4.3	8.0	*****	5.3	0.0054	0.0241
3RD QUARTILE	9.3	13.3	*****	6.0	0.0141	0.0351
VOL. WGT. MEAN	*****	8.4	*****	*****	0.0092	0.0288
NITRATE AS N	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
* OF SAMPLES	260	253	260	253	253	252
MAXIMUM	2.210	3.020	3.730	0.495	0.325	1.830
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	2.210	3.020	3.730	0.495	0.325	1.830
ARITH. MEAN	0.332	0.279	0.115	0.043	0.046	0.340
ARITH. STD. DEV	0.316	0.409	0.253	0.065	0.055	0.417
GEOM. MEAN	0.233	0.215	0.129	0.050	0.042	0.196
1ST QUARTILE	0.145	0.060	0.040	0.010	0.015	0.090
2ND QUARTILE	0.250	0.140	0.070	0.025	0.030	0.241
3RD QUARTILE	0.415	0.300	0.130	0.045	0.055	0.423
VOL. WGT. MEAN	0.241	0.196	0.066	0.029	0.036	0.280

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 4,86 TO DEC 31,86

PRECIP.	CONDUCT.	PH FIELD	PH LAB	FREE H ⁺ LAB MG/L	TOTAL H ⁺ GRAN MG/L	SULPHATE MG/L
MM	UHMO/CM	259	67	266	266	272
# OF SAMPLES						
MAXIMUM	113.8	94.5	7.0	7.6	0.2884	0.7800
MINIMUM	0.2	2.0	3.6	3.5	0.0000	0.0000
RANGE	113.6	92.5	3.4	4.1	0.2884	0.3800
ARITH. MEAN	5.8	31.7	4.4	4.5	0.0623	0.0927
ARITH. STD. DEV	8.8	22.0	0.6	0.7	0.0565	0.0701
GEOM. MEAN	2.6	23.7	4.4	4.4	0.0523	0.0728
1ST QUARTILE	0.8	15.8	1	4.1	0.0232	0.0432
2ND QUARTILE	3.0	26.3	4.5	4.3	0.0615	0.0750
3RD QUARTILE	7.4	44.8	4.6	4.6	0.0813	0.1166
VOL. WGT. MEAN	24.9	*****	*****	*****	0.0480	0.0744
NITRATE	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
AS N	MG/L	MG/L	MG/L	MG/L	MG/L	AS N MG/L
# OF SAMPLES	271	261	273	261	262	268
MAXIMUM	3.460	4.500	2.520	1.070	0.420	1.710
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	3.460	4.500	2.520	1.070	0.420	1.710
ARITH. MEAN	0.774	0.487	0.277	0.074	0.047	0.103
ARITH. STD. DEV	0.649	0.659	0.369	0.120	0.060	0.164
GEOM. MEAN	0.542	0.280	0.197	0.054	0.058	0.063
1ST QUARTILE	0.320	0.100	0.060	0.015	0.015	0.025
2ND QUARTILE	0.590	0.260	0.150	0.040	0.027	0.045
3RD QUARTILE	1.115	0.580	0.350	0.082	0.050	0.108
VOL. WGT. MEAN	0.507	0.268	0.170	0.039	0.027	0.057

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 13, 88 TO DEC 31, 88

PRECIP.		CONDUCT.		PH		FREE H ⁺		TOTAL H ⁺		SULPHATE	
	MM		UMHO/CM	FIELD		PH LAB	LAB	GRAN	MG/L	MG/L	MG/L
* OF SAMPLES	:	602	462	293	515	515	515	516	0.4169	0.4180	0.95
MAXIMUM	:	69.0	88.5	7.4	8.1	0.4169	0.0000	0.0000	18.00	0.0000	0.00
MINIMUM	:	0.1	1.5	3.0	3.4	0.4169	0.4169	0.4180	0.0000	0.0000	0.00
RANGE	:	68.9	87.0	4.4	4.7	0.4169	0.0434	0.0693	18.00	0.0434	3.72
ARITH. MEAN	:	5.5	29.8	4.3	5.1	0.4169	0.0571	0.0626	2.95	0.0571	2.95
ARITH. STD. DEV	:	7.8	19.6	0.6	1.2	0.4169	0.0626	0.0626	2.95	0.0626	2.95
GEOH. MEAN	:	2.6	23.4	4.2	5.0	0.4169	0.076	0.094	2.69	0.076	2.69
1ST QUARTILE	:	1.0	15.0	3.8	4.2	0.4169	0.0230	0.0230	1.70	0.0230	1.70
2ND QUARTILE	:	2.6	24.3	4.1	4.6	0.4169	0.0279	0.0515	2.85	0.0279	2.85
3RD QUARTILE	:	6.6	40.5	4.5	6.0	0.4169	0.0631	0.0925	5.10	0.0631	5.10
VOL. WGT. MEAN	:	*****	27.5	*****	*****	0.4169	0.0477	0.0731	3.21	0.0477	3.21
NITRATE	AS N	CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM				SODIUM	AMMONIUM	
	MG/L	MG/L	MG/L	MG/L	MG/L				MG/L	AS N	
* OF SAMPLES	:	495	455	496	455	453	453	455	455	510	510
MAXIMUM	:	4.490	5.120	3.050	0.985	1.100	1.100	1.110	1.110	3.900	3.900
MINIMUM	:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	:	4.490	5.120	3.050	0.985	1.100	1.100	1.110	1.110	3.900	3.900
ARITH. MEAN	:	0.750	0.710	0.308	0.135	0.077	0.077	0.114	0.114	0.705	0.705
ARITH. STD. DEV	:	0.604	0.782	0.339	0.165	0.119	0.119	0.150	0.150	0.622	0.622
GEOH. MEAN	:	0.532	0.416	0.233	0.082	0.050	0.050	0.071	0.071	0.491	0.491
1ST QUARTILE	:	0.305	0.180	0.110	0.030	0.020	0.020	0.035	0.035	0.276	0.276
2ND QUARTILE	:	0.590	0.460	0.220	0.080	0.040	0.040	0.060	0.060	0.493	0.493
3RD QUARTILE	:	1.035	0.950	0.395	0.168	0.085	0.085	0.135	0.135	0.926	0.926
VOL. WGT. MEAN	:	0.546	0.422	0.206	0.081	0.049	0.049	0.076	0.076	0.520	0.520

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 ***** : INSUFFICIENT DATA OR NOT APPLICABLE

PART V

SUMMARY STATISTICS OF WET DEPOSITION BY STATION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM

#06

PERIOD OF REPORT : JAN 3, 88 TO DEC 29,88

	PRECIP.	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
* OF SAMPLES	:	128	77	125	124	122	116
MAXIMUM	:	72.0	5.2048	4.3292	5.7147	307.80	27.500
MINIMUM	:	0.1	0.0001	0.0000	0.0012	0.000	0.012
RANGE	:	71.9	5.2047	4.3292	5.7135	307.80	27.488
ARITH. MEAN	:	5.9	0.4619	0.2962	0.4624	18.37	2.719
ARITH. STD. DEV	:	8.8	0.8021	0.6058	0.8704	40.23	5.113
GEOH. MEAN	:	2.7	0.1583	0.0334	0.1460	5.49	0.789
1ST QUARTILE	:	1.1	0.0815	0.0559	0.0517	1.97	1.096
2ND QUARTILE	:	3.3	0.2243	0.0789	0.1489	7.18	0.465
3RD QUARTILE	:	7.2	0.4619	0.2940	0.4646	17.01	1.372
VOL. WGT. MEAN	:	****	0.3475	0.2895	0.4520	3.375	2.497

	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	AS N MG/M**2
* OF SAMPLES	1	124	116	116	115
MAXIMUM	:	15.120	4.902	1.800	7.200
MINIMUM	:	0.000	0.000	0.000	0.000
RANGE	:	15.120	4.902	1.800	7.191
ARITH. MEAN	:	0.998	0.333	0.219	0.402
ARITH. STD. DEV	:	1.852	0.649	0.333	2.539
GEOH. MEAN	:	0.411	0.133	0.108	0.838
1ST QUARTILE	:	0.155	0.039	0.048	0.153
2ND QUARTILE	:	0.432	0.126	0.118	0.267
3RD QUARTILE	:	0.865	0.309	0.262	0.920
VOL. WGT. MEAN	:	0.968	0.305	0.201	2.431

**** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM #11

PERIOD OF REPORT : JAN 4, 88 TO DEC 29, 88

	PRECIP.	FREE H+ FIELD MG/M ²	FREE H+ LAB MG/M ²	TOTAL H+ GRAN MG/M ²	SULPHATE MG/M ²	NITRATE AS N MG/M ²	CALCIUM MG/M ²
* OF SAMPLES	: 104	: 33	: 93	: 93	: 95	: 95	: 91
MAXIMUM	: 38.6	: 1.8132	: 0.02620	: 2.8139	: 121.42	: 12.032	: 9.504
MINIMUM	: 0.2	: 0.0326	: 0.0000	: 0.0035	: 0.00	: 0.024	: 0.000
RANGE	: 38.4	: 1.7805	: 2.0020	: 2.8107	: 121.42	: 12.008	: 9.504
ARITH. MEAN	: 7.2	: 0.4390	: 0.3512	: 0.5440	: 18.75	: 3.228	: 1.593
ARITH. STD. DEV	: 6.2	: 0.3906	: 0.4019	: 0.5475	: 22.90	: 2.695	: 2.085
GEOH. MEAN	: 3.7	: 0.2975	: 0.1609	: 0.3136	: 9.29	: 2.117	: 0.879
1ST QUARTILE	: 1.6	: 0.1727	: 0.0946	: 0.1820	: 4.41	: 1.354	: 0.333
2ND QUARTILE	: 4.4	: 0.3742	: 0.2265	: 0.3633	: 11.10	: 2.511	: 0.788
3RD QUARTILE	: 9.2	: 0.5361	: 0.4661	: 0.6820	: 22.45	: 4.218	: 1.776
VOL. WGT. MEAN	: ****	: 0.3838	: 0.5264	: 0.5056	: 1.456	: 3.057	: 1.456

	CHLORIDE MG/M ²	MAGNESIUM MG/M ²	POTASSIUM MG/M ²	SODIUM MG/M ²	AMMONIUM AS N MG/M ²
* OF SAMPLES	: 95	: 91	: 91	: 91	: 94
MAXIMUM	: 34.750	: 1.575	: 1.122	: 1.351	: 14.213
MINIMUM	: 0.000	: 0.000	: 0.000	: 0.000	: 0.008
RANGE	: 34.750	: 1.575	: 1.122	: 1.351	: 14.205
ARITH. MEAN	: 1.340	: 0.269	: 0.185	: 0.320	: 2.352
ARITH. STD. DEV	: 3.718	: 0.350	: 0.216	: 0.362	: 2.715
GEOH. MEAN	: 0.673	: 0.186	: 0.119	: 0.216	: 1.150
1ST QUARTILE	: 0.222	: 0.044	: 0.030	: 0.067	: 0.725
2ND QUARTILE	: 0.528	: 0.145	: 0.098	: 0.178	: 1.546
3RD QUARTILE	: 1.300	: 0.321	: 0.206	: 0.333	: 2.895
VOL. WGT. MEAN	: 1.269	: 0.246	: 0.168	: 0.293	: 2.209

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
 (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AEROCHEM

#08

PERIOD OF REPORT : DEC 31, 87 TO DEC 31, 88

	PRECIP.	FREE H ₊ FIELD HG/H**2	FREE H ₊ LAB HG/H**2	TOTAL H ₊ GRAN HG/H**2	SULPHATE HG/H**2	Ni : RATE AS : N HG/H**2	CALCIUM HG/H**2
* OF SAMPLES	218	119	195	194	189	169	170
MAXIMUM	32.4	3,3121	4,0748	3,7184	116.95	15.180	15.3162
MINIMUM	0.0	0.0011	0.0001	0.0022	0.00	0.000	0.000
RANGE	32.4	3,3110	4,0747	3,7162	136.95	15.169	15.3162
ARITH. MEAN	4.7	0.4057	0.2534	0.3798	12.50	1.734	1.746
ARITH. STD. DEV	5.9	0.4235	0.4088	0.4933	17.82	3.200	2.130
GEOM. MEAN	1.8	0.2438	0.0649	0.1506	4.13	1.119	0.610
1ST QUARTILE	0.6	0.1324	0.0182	0.0493	1.60	0.309	0.194
2ND QUARTILE	2.2	0.2891	0.1091	0.1909	5.00	1.660	0.524
3RD QUARTILE	6.6	0.5704	0.3475	0.5215	16.95	3.948	1.434
VOL. WGT. MEAN	*****	0.2638	0.2264	0.3404	10.93	2.391	0.988

	CHLORIDE HG/H**2	MAGNESIUM HG/H**2	POTASSIUM HG/H**2	SODIUM HG/H**2	AMMONIUM AS N HG/H**2
* OF SAMPLES	168	170	171	171	15.518
MAXIMUM	10,092	2,686	1,930	6,072	15.518
MINIMUM	0.0000	0.0000	0.0000	0.0000	0.0000
RANGE	10,092	2,483	1,530	6,072	15.316
ARITH. MEAN	0.926	0.183	0.169	0.414	1.720
ARITH. STD. DEV	1.435	0.311	0.226	0.740	2.576
GEOM. MEAN	0.433	0.118	0.107	0.466	
1ST QUARTILE	0.090	0.024	0.031	0.057	0.072
2ND QUARTILE	0.390	0.075	0.079	0.188	0.717
3RD QUARTILE	1.187	0.203	0.226	0.445	2.204
VOL. WGT. MEAN	0.806	0.145	0.124	0.120	1.545

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
 (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EGBERT

PERIOD OF REPORT : NOV 29, 88 TO DEC 31,88

PRECIP.	FREE H ⁺ FIELD MG/H**2	FREE H ⁺ LAB MG/M**2	TOTAL H ⁺ GRAN MG/M**2	SULPHATE MG/H**2	NITRATE AS N MG/M**2	CALCIUM	
						** OF SAMPLES	19
MAXIMUM	7.8	*****	0.3327	0.4781	15.2*	2.262	1.580
MINIMUM	0.2	*****	0.0006	0.0051	0.05	0.098	0.080
RANGE	7.6	*****	0.3322	0.4731	15.24	2.164	1.500
ARITH. MEAN	1.6	*****	0.0518	0.0975	0.737	0.752	0.752
ARITH. STD. DEV	2.3	*****	0.0925	0.1377	4.84	0.825	0.552
GEOM. MEAN	0.9	*****	0.0152	0.0477	1.01	0.471	0.529
1ST QUARTILE	0.4	*****	0.0046	0.0240	0.29	0.247	0.266
2ND QUARTILE	0.6	*****	0.055	0.0431	0.79	0.366	0.582
3RD QUARTILE	1.1	*****	0.0376	0.1036	2.61	0.535	0.992
VOL. WGT. MEAN	*****		0.0387	0.0697	1.76	0.435	0.428

PRECIP.	FREE H ⁺ FIELD MG/H**2	FREE H ⁺ LAB MG/M**2	TOTAL H ⁺ GRAN MG/M**2	SULPHATE MG/H**2	NITRATE AS N MG/M**2	CALCIUM	
						** OF SAMPLES	9
MAXIMUM	2.184	0.330	0.160	0.935	0.98	0.000	0.998
MINIMUM	0.000	0.010	0.005	0.017	0.066	0.000	0.000
RANGE	2.184	0.320	0.154	0.918	0.952	0.000	0.000
ARITH. MEAN	0.789	0.124	0.054	0.488	0.261	0.000	0.000
ARITH. STD. DEV	0.813	0.122	0.059	0.314	0.307	0.000	0.000
GEOM. MEAN	0.475	0.074	0.028	0.314	0.176	0.000	0.000
1ST QUARTILE	0.053	0.031	0.009	0.214	0.092	0.000	0.000
2ND QUARTILE	0.414	0.075	0.015	0.428	0.167	0.000	0.000
3RD QUARTILE	1.165	0.121	0.080	0.673	0.253	0.000	0.000
VOL. WGT. MEAN	0.454	0.070	0.031	0.277	0.134	0.000	0.000

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
 (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS FOR CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY/AEROCHEM

#16

PERIOD OF REPORT : JAN 1, 88 TO DEC 31,88

# OF SAMPLES	PRECIP. MM	FREE H+		TOTAL H+		SULPHATE		NITRATE		CALCIUM	
		FIELD	LAB	GNA	MG/MM ²	MG/MM ²	MG/MM ²	AS N	MG/MM ²	MG/MM ²	MG/MM ²
		MG/MM ²									
153	0	108	108	114	83.65	14.532	114	106	9.688	0.502	0.000
69.2	*****	1.2966	2.2131	0.0000	0.0010	0.000	0.000	0.000	0.000	0.000	0.000
0.1	*****	1.2865	2.2121	0.0597	0.2035	0.2035	0.2035	0.204	0.697	1.697	1.204
69.1	*****	0.0597	0.1330	0.0079	0.0854	0.0854	0.0854	0.0854	0.124	2.146	1.868
5.8	*****	0.1330	0.3029	0.0014	0.0424	0.0424	0.0424	0.0424	0.677	0.624	0.624
9.9	*****	0.3029	0.6618	0.0118	0.0904	0.0904	0.0904	0.0904	0.926	0.926	0.926
1.7	*****	0.6618	0.2708	0.0082	0.2708	0.2708	0.2708	0.2708	2.355	1.496	1.496
0.5	*****	0.2708	0.1507	0.0044	0.1507	0.1507	0.1507	0.1507	0.876	0.876	0.876
2.3	*****	0.1507	0.1507	0.1507	0.1507	0.1507	0.1507	0.1507	0.1507	0.1507	0.1507
6.4	*****	0.1507	0.1507	0.1507	0.1507	0.1507	0.1507	0.1507	0.1507	0.1507	0.1507
VOL. WGT. MEAN	:	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

# OF SAMPLES	PRECIP. MM	FREE H+		TOTAL H+		SULPHATE		NITRATE		AMMONIUM	
		FIELD	LAB	GNA	MG/MM ²	MG/MM ²	MG/MM ²	AS N	MG/MM ²	MG/MM ²	MG/MM ²
		MG/MM ²									
114	106	106	106	106	1.076	2.076	1.780	120	29.479	0.000	0.000
4,160	2,475	0,000	0,000	0,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4,160	2,475	0,000	0,000	0,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	4,160	2,475	0,000	0,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ARITH. MEAN	0.402	0.202	0.202	0.202	0.250	0.250	0.248	0.219	2.019	2.019	2.019
ARITH. STD. DEV	0.591	0.368	0.386	0.386	0.377	0.377	0.374	0.374	3.574	3.574	3.574
GEOH. MEAN	0.285	0.149	0.149	0.149	0.140	0.140	0.140	0.140	0.466	0.466	0.466
1ST QUARTILE	0.053	0.013	0.031	0.031	0.036	0.036	0.036	0.036	0.016	0.016	0.016
2ND QUARTILE	0.188	0.105	0.121	0.121	0.122	0.122	0.122	0.122	0.790	0.790	0.790
3RD QUARTILE	0.497	0.208	0.258	0.258	0.260	0.260	0.260	0.260	2.590	2.590	2.590
VOL. WGT. MEAN	0.512	0.147	0.162	0.162	0.160	0.160	0.160	0.160	1.475	1.475	1.475

INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF DEPOSITION

STATION=GONGANDA AEROCHEM SITE NO.1									
	EQUIVALENT PREC. DEPTH MM	SULFATE	NITRATE	CALCIUM	CHLORIDE	MAGNESIUM			
		MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2			
# OF SAMPLES	:	167.0	167	8.51	167	9.58	1.67	1.67	1.62
MAXIMUM	:	37.0	89.11	0.00	0.00	0.00	0.00	0.00	0.00
MINIMUM	:	0.0	0.02	1.50	0.72	0.34	0.112	0.112	0.112
ARITH. MEAN	:	4.2	9.02	1.85	1.52	0.41	0.254	0.254	0.254
ARITH. STD. DEV	:	6.2	13.05	0.60	0.30	0.22	0.048	0.048	0.048
GEOM. MEAN	:	1.1	3.23	0.08	0.06	0.04	0.005	0.005	0.005
1ST QUARTILE	:	0.2	0.90	0.69	0.20	0.21	0.026	0.026	0.026
2ND QUARTILE	:	1.3	5.09	2.21	0.68	0.46	0.107	0.107	0.107
3RD QUARTILE	:	5.8	12.72	0.85	0.41	0.19	0.063	0.063	0.063
VOL. WGT. MEAN	:	32.0	79	79	83	83	83	83	83
MISSING VALUES	:								
	POTASSIUM	SODIUM	AMMONIUM	ACIDITY GRAN	FRESH+				
	MG/M**2	MG/M**2	MG/M**2	UG/M**2	UG/M**2				
# OF SAMPLES	:	167	167	9.576	1.67	1.67	1.67	1.67	1.67
MAXIMUM	:	1.144	1.080	0.000	1758.26	1758.26	1758.26	1758.26	1758.26
MINIMUM	:	0.000	0.000	0.974	2.86	2.86	2.86	2.86	2.86
ARITH. MEAN	:	0.136	0.195	0.232	308.52	308.52	308.52	308.52	308.52
ARITH. STD. DEV	:	0.200	0.232	0.1561	342.00	342.00	342.00	342.00	342.00
GEOM. MEAN	:	0.079	0.125	0.271	131.35	131.35	131.35	131.35	131.35
1ST QUARTILE	:	0.024	0.052	0.066	36.48	36.48	36.48	36.48	36.48
2ND QUARTILE	:	0.076	0.106	0.205	193.44	193.44	193.44	193.44	193.44
3RD QUARTILE	:	0.162	0.235	1.346	456.00	456.00	456.00	456.00	456.00
VOL. WGT. MEAN	:	0.077	0.110	0.644	175.31	175.31	175.31	175.31	175.31
MISSING VALUES	:	84	83	75	80	80	80	80	80

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : HIGH FALLS

PERIOD OF REPORT : APR 14, 88 TO DEC 31, 88

	PRECIP.	FREE H ⁺ FIELD HG/H**2	FREE H ⁺ LAB HG/H**2	TOTAL H ⁺ CHAN HG/M**2	SULPHATE HG/H**2	NITRATE AS N HG/H**2	CALCIUM HG/H**2
* OF SAMPLES	:	114	60	91	91	82	84
MAXIMUM	:	38.2	31.050	2.7673	3.8200	138.60	27.5%
MINIMUM	:	0.0	0.0034	0.0000	0.0028	0.00	0.000
RANGE	:	38.2	3.1016	2.7673	3.8172	138.60	27.504
ARITH. MEAN	:	7.0	0.5137	0.2983	0.4664	15.35	8.736
STD. DEV	:	7.8	0.6287	0.4998	0.7132	23.75	3.298
GEOH. MEAN	:	1.7	0.2390	0.0532	0.1454	5.17	1.024
1ST QUARTILE	:	0.5	0.1025	0.0139	0.0459	1.84	0.428
2ND QUARTILE	:	2.0	0.2340	0.0879	0.1885	6.37	0.335
3RD QUARTILE	:	5.5	0.7429	0.4275	0.5433	21.03	4.486
VOL. WGT. MEAN	:	*****	0.3036	0.2437	0.3810	11.47	0.781

	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
	HG/H**2	HG/H**2	HG/H**2	HG/H**2	AS N HG/H**2
* OF SAMPLES	:	82	84	83	84
MAXIMUM	:	8.786	1.144	1.135	6.400
MINIMUM	:	0.000	0.000	0.000	0.000
RANGE	:	8.786	1.144	1.135	6.400
ARITH. MEAN	:	0.826	0.177	0.272	0.344
STD. DEV	:	1.463	0.259	0.403	0.638
GEOH. MEAN	:	0.429	0.090	0.139	0.147
1ST QUARTILE	:	0.072	0.010	0.039	0.054
2ND QUARTILE	:	0.420	0.063	0.155	0.166
3RD QUARTILE	:	0.907	0.227	0.360	0.359
VOL. WGT. MEAN	:	0.617	0.135	0.206	0.262

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHEM

#02

PERIOD OF REPORT : JAN 13, 86 TO DEC 28,88

		PRECIP.	FREE H ⁺ FIELD MG/H***2	FREE H ⁺ LAB MG/M***2	TOTAL H ⁺ GRAN MG/M***2	SULPHATE MG/H***2	NITRATE AS N MG/M***2	CALCIUM MG/M***2
* OF SAMPLES	:	120	70	107	107	104	104	93
MAXIMUM	:	69.0	20.3634	7.2252	9.1080	334.65	29.980	28.340
MINIMUM	:	0.1	0.0002	0.0000	0.0025	0.1	0.000	0.000
RANGE	:	68.9	20.3632	7.2252	9.1055	334.48	28.910	28.340
ARITH. MEAN	:	7.4	1.6102	0.3866	0.5878	25.86	4.559	5.732
ARITH. STD. DEV	:	10.7	3.0664	0.6709	1.1179	42.18	4.889	4.271
GEOM. MEAN	:	3.7	0.3388	0.0294	0.1964	11.50	2.573	2.345
1ST QUARTILE	:	1.6	0.1122	0.0032	0.0596	5.64	1.127	1.516
2ND QUARTILE	:	3.7	0.6504	0.1008	0.2262	12.70	2.801	2.086
3RD QUARTILE	:	9.1	1.3553	0.3712	0.6463	31.22	5.910	4.626
VOL. WGT. MEAN	:	*****	1.0760	0.3813	0.5768	25.30	4.259	3.249
		CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM	AS N	MG/M***2
		MG/H***2	MG/M***2	MG/H***2	MG/M***2	MG/H***2	MG/M***2	MG/M***2
* OF SAMPLES	:	106	93	94	94	107		
MAXIMUM	:	12.328	4.290	4.992	6.946	24.600		
MINIMUM	:	0.000	0.000	0.033	0.000	0.032		
RANGE	:	12.328	4.290	4.959	6.946	24.568		
ARITH. MEAN	:	1.750	0.688	0.654	0.777	3.794		
ARITH. STD. DEV	:	1.908	0.807	0.782	1.032	4.808		
GEOM. MEAN	:	1.107	0.433	0.406	0.450	1.906		
1ST QUARTILE	:	0.450	0.219	0.210	0.177	0.907		
2ND QUARTILE	:	1.254	0.368	0.384	0.431	1.864		
3RD QUARTILE	:	2.296	0.870	0.745	0.649	5.604		
VOL. WGT. MEAN	:	1.738	0.599	0.573	0.681	3.722		

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
 NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
 (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHEM

#01

PERIOD OF REPORT : JAN 3, 88 TO DEC 30,88

	PRECIP.	FREE H ⁺ FIELD HG/H**#2	FREE H ⁺ LAB HG/H**#2	TOTAL H ⁺ GIAN HG/H**#2	SULPHATE HG/H**#2	NITRATE AS N HG/H**#2	CALCIUM HG/H**#2
# OF SAMPLES	:	129	69	112	109	109	100
MAXIMUM	:	40.2	13.1962	3.0231	3.4850	160.18	32.467
MINIMUM	:	0.1	0.0003	0.0000	0.0000	0.000	0.000
RANGE	:	40.1	13.1959	3.0231	3.4850	180.18	37.467
ARITH. MEAN	:	5.1	1.1772	0.3296	0.4842	20.94	5.660
ARITH. STD. DEV	:	6.9	1.9531	0.4223	0.6556	27.40	2.817
GEOM. MEAN	:	2.3	0.3064	0.0019	0.1997	4.301	4.524
1ST QUARTILE	:	1.0	0.1464	0.0123	0.0661	5.80	1.498
2ND QUARTILE	:	2.2	0.4211	0.1219	0.2335	9.92	2.366
3RD QUARTILE	:	6.8	1.2453	0.6697	0.6976	27.82	4.706
VOL. WGT. MEAN	:	*****	0.7255	0.2684	0.4237	3.107	2.247

	CHLORIDE HG/H**#2	MAGNESIUM HG/H**#2	POTASSIUM HG/H**#2	SODIUM HG/H**#2	AMPHONIUM AS N HG/H**#2
# OF SAMPLES	:	109	100	99	111
MAXIMUM	:	7.371	4.617	3.060	30.30
MINIMUM	:	0.000	0.000	0.000	0.000
RANGE	:	7.371	4.617	3.060	29.948
ARITH. MEAN	:	1.224	0.489	0.343	5.050
ARITH. STD. DEV	:	1.170	0.756	0.428	0.479
GEOM. MEAN	:	0.864	0.289	0.224	9.499
1ST QUARTILE	:	0.465	0.120	0.120	1.649
2ND QUARTILE	:	0.803	0.258	0.208	0.235
3RD QUARTILE	:	1.616	0.504	0.339	0.651
VOL. WGT. MEAN	:	1.045	0.290	0.272	0.379

***** 1 INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
 (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/AEROCHEM

#07

PERIOD OF REPORT : DEC 31, 87 TO DEC 31, 88

PRECIP.	FREE H+		TOTAL H+		SULPHATE		NITRATE		CALCIUM	
	FIELD MG/M**2	LAB MG/M**2	GRAN MG/M**2		MG/NH**2	MG/NH**2	AS N		MG/M**2	MG/M**2
			FREE	H+			0.05	0.018		
# OF SAMPLES	135	83	120	120	115	115	0.05	0.018	108	108
MAXIMUM	30.4	2.1683	2.2189	2.2189	2.7580	2.7580	0.0530	0.0530	12.160	12.160
MINIMUM	0.0	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RANGE	30.4	2.1683	2.2188	2.2188	2.7529	2.7529	0.4029	0.4029	12.160	12.160
ARITH. MEAN	5.1	0.3740	0.2504	0.2504	0.5202	0.5202	14.54	14.54	1.292	1.292
ARITH. STD. DEV	6.0	0.4141	0.3738	0.3738	0.5202	0.5202	20.76	20.76	2.040	2.040
GEOM. MEAN	2.3	0.1439	0.0680	0.0680	0.1538	0.1538	5.28	5.28	0.560	0.560
1ST QUARTILE	0.9	0.0697	0.0137	0.0137	0.0561	0.0561	1.80	1.80	0.164	0.164
2ND QUARTILE	2.6	0.3320	0.0897	0.0897	0.1815	0.1815	6.45	6.45	0.610	0.610
3RD QUARTILE	7.0	0.5339	0.3048	0.3048	0.5353	0.5353	18.57	18.57	1.324	1.324
VOL. WGT. MEAN	*****	0.2495	0.2661	0.2661	0.3639	0.3639	12.60	12.60	1.063	1.063
									2.468	2.468
CHLORIDE	MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM		AS N	
	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	116	107	108	108	108	108	108	108	17.328	17.328
MAXIMUM	8.968	1.368	1.633	1.633	5.092	5.092	0.006	0.006	0.002	0.002
MINIMUM	0.000	0.000	0.004	0.004	0.006	0.006	0.006	0.006	0.002	0.002
RANGE	8.968	1.368	1.629	1.629	5.086	5.086	0.006	0.006	17.326	17.326
ARITH. MEAN	0.862	0.180	0.246	0.246	0.310	0.310	0.310	0.310	2.301	2.301
ARITH. STD. DEV	1.293	0.290	0.283	0.283	0.547	0.547	0.547	0.547	2.940	2.940
GEOM. MEAN	0.482	0.119	0.139	0.139	0.166	0.166	0.166	0.166	0.742	0.742
1ST QUARTILE	0.157	0.011	0.072	0.072	0.076	0.076	0.076	0.076	0.232	0.232
2ND QUARTILE	0.430	0.071	0.174	0.174	0.189	0.189	0.189	0.189	1.257	1.257
3RD QUARTILE	1.163	0.170	0.298	0.298	0.353	0.353	0.353	0.353	3.302	3.302
VOL. WGT. MEAN	0.753	0.147	0.202	0.202	0.255	0.255	0.255	0.255	2.121	2.121

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

PERIOD OF REPORT : DEC 31, 87 TO DEC 30, 88

PRECIP.	FREE H ⁺			TOTAL H ⁺			SULPHATE			NITRATE			CALCIUM		
	FIELD			LAB			GRAN			MG/M ² N			MG/M ² N		
	MG/M ² *2			MG/M ² *2			MG/M ² *2			MG/M ² *2			MG/M ² *2		
* OF SAMPLES	173	81	148	150	142	142	145.52	25.200	25.080	0.10	0.010	0.000	138		
MAXIMUM	38.4	6.0451	3.0228	3.9804	0.0054	0.0054	3.9804	0.0054	0.0054	0.10	0.010	0.000	25.080		
MINIMUM	0.1	0.0035	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.10	0.010	0.000	25.080		
RANGE	38.3	6.0418	3.0228	3.9749	0.0053	0.0053	3.9749	0.0053	0.0053	145.62	25.190	25.080	25.080		
ARITH. MEAN	5.2	1.0105	0.2511	0.4576	0.4576	0.4576	0.4576	0.4576	0.4576	17.80	3.139	2.464	2.464		
ARITH. STD. DEV	6.9	1.4084	0.3708	0.0179	0.0179	0.0179	0.0179	0.0179	0.0179	23.68	3.977	3.492	3.492		
GEOGM. MEAN	2.5	0.9	0.1605	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007	7.68	1.496	1.256	1.256		
1ST QUARTILE	2.3	0.4171	0.0500	0.0564	0.0564	0.0564	0.0564	0.0564	0.0564	3.06	0.658	0.608	0.608		
2ND QUARTILE	2.3	0.4171	0.0500	0.0564	0.0564	0.0564	0.0564	0.0564	0.0564	10.53	1.948	1.232	1.232		
3RD QUARTILE	5.8	1.0653	0.2970	0.4806	0.4806	0.4806	0.4806	0.4806	0.4806	23.19	4.100	3.006	3.006		
VOL. WGT. MEAN	*****	0.5780	0.2191	0.3482	0.3482	0.3482	0.3482	0.3482	0.3482	15.02	2.648	2.028	2.028		
CHLORIDE															
* OF SAMPLES	142	138	137	138	0.000	0.000	0.000	0.000	0.000	1.38	1.38	1.51	1.51		
MAXIMUM	15.408	4.890	2.590	2.590	0.000	0.000	0.000	0.000	0.000	6.300	6.300	6.980	6.980		
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.018	0.000	0.000		
RANGE	15.408	4.890	2.590	2.590	0.000	0.000	0.000	0.000	0.000	6.282	6.282	17.980	17.980		
ARITH. MEAN	1.206	0.500	0.228	0.228	0.228	0.228	0.228	0.228	0.228	0.455	0.455	2.879	2.879		
ARITH. STD. DEV	2.122	0.762	0.329	0.329	0.329	0.329	0.329	0.329	0.329	0.811	0.811	3.581	3.581		
GEOGM. MEAN	0.610	0.256	0.124	0.124	0.124	0.124	0.124	0.124	0.124	0.196	0.196	1.260	1.260		
1ST QUARTILE	0.209	0.099	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.084	0.084	0.540	0.540		
2ND QUARTILE	0.545	0.269	0.112	0.112	0.112	0.112	0.112	0.112	0.112	0.175	0.175	1.712	1.712		
3RD QUARTILE	1.189	0.558	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.384	0.384	3.760	3.760		
VOL. WGT. MEAN	1.017	0.412	0.187	0.187	0.187	0.187	0.187	0.187	0.187	0.374	0.374	2.550	2.550		
MAGNESIUM															
* OF SAMPLES	142	138	137	138	0.000	0.000	0.000	0.000	0.000	1.38	1.38	1.51	1.51		
MAXIMUM	15.408	4.890	2.590	2.590	0.000	0.000	0.000	0.000	0.000	6.300	6.300	6.980	6.980		
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.018	0.000	0.000		
RANGE	15.408	4.890	2.590	2.590	0.000	0.000	0.000	0.000	0.000	6.282	6.282	17.980	17.980		
ARITH. MEAN	1.206	0.500	0.228	0.228	0.228	0.228	0.228	0.228	0.228	0.455	0.455	2.879	2.879		
ARITH. STD. DEV	2.122	0.762	0.329	0.329	0.329	0.329	0.329	0.329	0.329	0.811	0.811	3.581	3.581		
GEOGM. MEAN	0.610	0.256	0.124	0.124	0.124	0.124	0.124	0.124	0.124	0.196	0.196	1.260	1.260		
1ST QUARTILE	0.209	0.099	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.084	0.084	0.540	0.540		
2ND QUARTILE	0.545	0.269	0.112	0.112	0.112	0.112	0.112	0.112	0.112	0.175	0.175	1.712	1.712		
3RD QUARTILE	1.189	0.558	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.384	0.384	3.760	3.760		
VOL. WGT. MEAN	1.017	0.412	0.187	0.187	0.187	0.187	0.187	0.187	0.187	0.374	0.374	2.550	2.550		
SODIUM															
* OF SAMPLES	142	138	137	138	0.000	0.000	0.000	0.000	0.000	1.38	1.38	1.51	1.51		
MAXIMUM	15.408	4.890	2.590	2.590	0.000	0.000	0.000	0.000	0.000	6.300	6.300	6.980	6.980		
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.018	0.000	0.000		
RANGE	15.408	4.890	2.590	2.590	0.000	0.000	0.000	0.000	0.000	6.282	6.282	17.980	17.980		
ARITH. MEAN	1.206	0.500	0.228	0.228	0.228	0.228	0.228	0.228	0.228	0.455	0.455	2.879	2.879		
ARITH. STD. DEV	2.122	0.762	0.329	0.329	0.329	0.329	0.329	0.329	0.329	0.811	0.811	3.581	3.581		
GEOGM. MEAN	0.610	0.256	0.124	0.124	0.124	0.124	0.124	0.124	0.124	0.196	0.196	1.260	1.260		
1ST QUARTILE	0.209	0.099	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.084	0.084	0.540	0.540		
2ND QUARTILE	0.545	0.269	0.112	0.112	0.112	0.112	0.112	0.112	0.112	0.175	0.175	1.712	1.712		
3RD QUARTILE	1.189	0.558	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.384	0.384	3.760	3.760		
VOL. WGT. MEAN	1.017	0.412	0.187	0.187	0.187	0.187	0.187	0.187	0.187	0.374	0.374	2.550	2.550		
AMMONIUM															
* OF SAMPLES	142	138	137	138	0.000	0.000	0.000	0.000	0.000	1.38	1.38	1.51	1.51		
MAXIMUM	15.408	4.890	2.590	2.590	0.000	0.000	0.000	0.000	0.000	6.300	6.300	6.980	6.980		
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.018	0.000	0.000		
RANGE	15.408	4.890	2.590	2.590	0.000	0.000	0.000	0.000	0.000	6.282	6.282	17.980	17.980		
ARITH. MEAN	1.206	0.500	0.228	0.228	0.228	0.228	0.228	0.228	0.228	0.455	0.455	2.879	2.879		
ARITH. STD. DEV	2.122	0.762	0.329	0.329	0.329	0.329	0.329	0.329	0.329	0.811	0.811	3.581	3.581		
GEOGM. MEAN	0.610	0.256	0.124	0.124	0.124	0.124	0.124	0.124	0.124	0.196	0.196	1.260	1.260		
1ST QUARTILE	0.209	0.099	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.084	0.084	0.540	0.540		
2ND QUARTILE	0.545	0.269	0.112	0.112	0.112	0.112	0.112	0.112	0.112	0.175	0.175	1.712	1.712		
3RD QUARTILE	1.189	0.558	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.384	0.384	3.760	3.760		
VOL. WGT. MEAN	1.017	0.412	0.187	0.187	0.187	0.187	0.187	0.187	0.187	0.374	0.374	2.550	2.550		

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
 (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PENN. STATE

PERIOD OF REPORT : MAY 16, 88

TO DEC 28, 88

PRECIP.		FREE H ⁺ FIELD MG/H*#2	FREE H ⁺ LAB MG/H*#2	TOTAL H ⁺ GRAN MG/H*#2	SULPHATE MG/H*#2	NITRATE AS N MG/NH*#2	CALCIUM MG/MH*#2
# OF SAMPLES	:	50	0	40	40	76	36
MAXIMUM	:	30.4	*****	2.9000	3.15090	140.65	37
MINIMUM	:	0.1	*****	0.0012	0.0068	0.87	5.984
RANGE	:	30.3	*****	2.8988	3.5022	139.78	0.000
ARITH. MEAN	:	7.1	*****	0.4308	0.6098	20.71	11.450
ARITH. STD. DEV	:	8.9	*****	0.5739	0.7157	26.89	5.984
GEOM. MEAN	:	2.6	*****	0.1740	0.2876	10.20	0.830
1ST QUARTILE	:	0.6	*****	0.0566	0.0971	4.20	1.105
2ND QUARTILE	:	3.0	*****	0.2765	0.4028	12.63	0.553
3RD QUARTILE	:	8.8	*****	0.4517	0.7558	24.14	1.696
VOL. WGT. MEAN	:	*****	*****	0.3669	0.5195	16.97	0.785
CHLORIDE		MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM		
		MG/H*#2	MG/H*#2	MG/H*#2	AS N MG/NH*#2		
# OF SAMPLES	:	36	37	37	40		
MAXIMUM	:	3.190	0.986	0.986	9.792		
MINIMUM	:	0.100	0.000	0.000	0.032		
RANGE	:	3.190	0.986	0.986	9.760		
ARITH. MEAN	:	0.945	0.143	0.146	0.337		
ARITH. STD. DEV	:	0.835	0.188	0.212	0.408		
GEOM. MEAN	:	0.662	0.151	0.117	0.175		
1ST QUARTILE	:	0.272	0.028	0.030	0.060		
2ND QUARTILE	:	0.635	0.078	0.082	0.170		
3RD QUARTILE	:	1.491	0.173	0.150	0.428		
VOL. WGT. MEAN	:	0.774	0.113	0.117	0.266		

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
 (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/AEROCHEM

#10

PERIOD OF REPORT : JAN 8, 88 TO DEC 29,88

PRECIP.	FREE H+		TOTAL H+		SULPHATE		NITRATE AS N		CALCIUM	
	FIELD	LAB	GRAN	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2	MG/M**2
# OF SAMPLES	60	21	51							
MAXIMUM	28.2	2.1023	1.8737	2.7664	95.09	15.561	13.224	0.000	0.000	0.000
MINIMUM	0.2	0.0002	0.0000	0.0000	0.24	0.000	0.000	15.561	13.224	13.224
RANGE	28.0	2.1021	1.8731	2.7664	94.85	15.561	13.224	0.299	0.306	0.306
ARITH. MEAN	6.4	0.6287	0.7801	0.5924	23.29	4.299	3.036	0.5664	0.5235	0.5235
ARITH. STD. DEV	6.4	0.5173	0.5146	0.5564	21.32	3.706	2.634	0.1261	0.1261	0.1261
GEOM. MEAN	3.7	0.2307	0.2307	0.3391	12.98	1.764	1.764	0.1261	0.1261	0.1261
1ST QUARTILE	2.0	0.3108	0.3108	0.3354	6.97	1.290	1.290	0.0646	0.0646	0.0646
2ND QUARTILE	4.2	0.4875	0.4875	0.4522	16.46	2.976	2.976	0.2056	0.2056	0.2056
3RD QUARTILE	8.0	0.8206	0.8206	0.8358	33.30	5.534	5.534	0.5186	0.5186	0.5186
VOL. WGT. MEAN	*****	0.5590	0.5590	0.5520	22.45	4.144	4.144	0.5520	0.5520	0.5520
CHLORTIDE										
MAGNESIUM										
MG/M**2										
# OF SAMPLES	53	50	51							
MAXIMUM	10.672	1.740	2.556							
MINIMUM	0.000	0.000	0.000							
RANGE	10.672	1.740	2.556							
ARITH. MEAN	1.360	0.392	0.324							
ARITH. STD. DEV	1.808	0.419	0.452							
GEOM. MEAN	0.732	0.236	0.206							
1ST QUARTILE	0.279	0.110	0.063							
2ND QUARTILE	0.712	0.217	0.154							
3RD QUARTILE	1.596	0.508	0.351							
VOL. WGT. MEAN	1.310	0.370	0.307							
POTASSIUM										
SODIUM										
MG/M**2										
# OF SAMPLES	53	50	51							
MAXIMUM	10.672	1.740	2.556							
MINIMUM	0.000	0.000	0.000							
RANGE	10.672	1.740	2.556							
ARITH. MEAN	1.360	0.392	0.324							
ARITH. STD. DEV	1.808	0.419	0.452							
GEOM. MEAN	0.732	0.236	0.206							
1ST QUARTILE	0.279	0.110	0.063							
2ND QUARTILE	0.712	0.217	0.154							
3RD QUARTILE	1.596	0.508	0.351							
VOL. WGT. MEAN	1.310	0.370	0.307							

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
 (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/AEROCHEM #05

PERIOD OF REPORT : DEC 31, 87 TO DEC 31, 88

PRECIP.	FREE H ⁺		TOTAL H ⁺		SULPHATE		NITRATE		CALCIUM	
	FIELD MG/H ^{***2}	LAB MG/H ^{***2}	GRAIN MG/H ^{***2}	MG/H ^{***2}	AS H MG/H ^{***2}	MG/H ^{***2}	AS H MG/H ^{***2}	MG/H ^{***2}	AS H MG/H ^{***2}	MG/H ^{***2}
* OF SAMPLES										
MAXIMUM	167	71	137	137	236	136	134	124		
MINIMUM	40.0	4.8091	4.2861	5.2400	24.800	24.800	15.080			
RANGE	0.0	0.0006	0.0000	0.0025	0.020	0.020	0.000			
ARITH. MEAN	40.0	4.8084	4.2861	5.2375	236.00	24.780	15.080			
ARITH. STD. DEV	4.6	0.4655	0.2364	0.5730	14.49	2.626	1.927			
GEOM. MEAN	6.0	0.7678	0.5573	0.6878	51.53	3.8959	2.912			
1ST QUARTILE	2.1	0.1913	0.0325	0.1286	4.66	1.032	0.656			
2ND QUARTILE	0.8	0.0735	0.0066	0.0630	1.50	0.362	0.282			
3RD QUARTILE	2.0	0.2468	0.0645	0.1204	4.57	1.296	0.834			
VOL. WGT. MEAN	6.1	0.4872	0.2354	0.3935	14.74	3.280	2.272			
	*****	0.2595	0.2147	0.3418	13.16	2.369	1.910			
CHLORIDE										
MG/H ^{***2}	MG/H ^{***2}		MG/H ^{***2}		MG/H ^{***2}		MG/H ^{***2}		MG/H ^{***2}	
* OF SAMPLES										
MAXIMUM	137	124	123	124	124	124	140			
MINIMUM	4,400	2,850	2,150	2,850	2,688	2,688	2,536			
RANGE	4,400	0.000	0.000	2,850	2,150	2,150	0.001			
ARITH. MEAN	0.662	0.242	0.195	0.242	0.248	0.248	2.149			
ARITH. STD. DEV	0.858	0.432	0.247	0.432	0.381	0.381	3.900			
GEOM. MEAN	0.362	0.114	0.095	0.114	0.144	0.144	0.573			
1ST QUARTILE	0.120	0.030	0.027	0.030	0.064	0.064	0.195			
2ND QUARTILE	0.349	0.090	0.077	0.090	0.120	0.120	0.23			
3RD QUARTILE	0.858	0.223	0.185	0.223	0.275	0.275	2.142			
VOL. WGT. MEAN	0.606	0.202	0.150	0.202	0.207	0.207	1.991			
MAGNESIUM										
MG/H ^{***2}	MG/H ^{***2}		MG/H ^{***2}		MG/H ^{***2}		MG/H ^{***2}		MG/H ^{***2}	
* OF SAMPLES										
MAXIMUM	137	124	123	124	124	124	140			
MINIMUM	4,400	2,850	2,150	2,850	2,688	2,688	2,536			
RANGE	4,400	0.000	0.000	2,850	2,150	2,150	0.001			
ARITH. MEAN	0.662	0.242	0.195	0.242	0.248	0.248	2.149			
ARITH. STD. DEV	0.858	0.432	0.247	0.432	0.381	0.381	3.900			
GEOM. MEAN	0.362	0.114	0.095	0.114	0.144	0.144	0.573			
1ST QUARTILE	0.120	0.030	0.027	0.030	0.064	0.064	0.195			
2ND QUARTILE	0.349	0.090	0.077	0.090	0.120	0.120	0.23			
3RD QUARTILE	0.858	0.223	0.185	0.223	0.275	0.275	2.142			
VOL. WGT. MEAN	0.606	0.202	0.150	0.202	0.207	0.207	1.991			
SODIUM										
MG/H ^{***2}	MG/H ^{***2}		MG/H ^{***2}		MG/H ^{***2}		MG/H ^{***2}		MG/H ^{***2}	
* OF SAMPLES										
MAXIMUM	137	124	123	124	124	124	140			
MINIMUM	4,400	2,850	2,150	2,850	2,688	2,688	2,536			
RANGE	4,400	0.000	0.000	2,850	2,150	2,150	0.001			
ARITH. MEAN	0.662	0.242	0.195	0.242	0.248	0.248	2.149			
ARITH. STD. DEV	0.858	0.432	0.247	0.432	0.381	0.381	3.900			
GEOM. MEAN	0.362	0.114	0.095	0.114	0.144	0.144	0.573			
1ST QUARTILE	0.120	0.030	0.027	0.030	0.064	0.064	0.195			
2ND QUARTILE	0.349	0.090	0.077	0.090	0.120	0.120	0.23			
3RD QUARTILE	0.858	0.223	0.185	0.223	0.275	0.275	2.142			
VOL. WGT. MEAN	0.606	0.202	0.150	0.202	0.207	0.207	1.991			
AMMONIUM										
AS N	AS N		AS N		AS N		AS N		AS N	
* OF SAMPLES										
MAXIMUM	137	124	123	124	124	124	140			
MINIMUM	4,400	2,850	2,150	2,850	2,688	2,688	2,536			
RANGE	4,400	0.000	0.000	2,850	2,150	2,150	0.001			
ARITH. MEAN	0.662	0.242	0.195	0.242	0.248	0.248	2.149			
ARITH. STD. DEV	0.858	0.432	0.247	0.432	0.381	0.381	3.900			
GEOM. MEAN	0.362	0.114	0.095	0.114	0.144	0.144	0.573			
1ST QUARTILE	0.120	0.030	0.027	0.030	0.064	0.064	0.195			
2ND QUARTILE	0.349	0.090	0.077	0.090	0.120	0.120	0.23			
3RD QUARTILE	0.858	0.223	0.185	0.223	0.275	0.275	2.142			
VOL. WGT. MEAN	0.606	0.202	0.150	0.202	0.207	0.207	1.991			

***** : INCOMPLETE DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH
 NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
 (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SUTTON/DAILY/AEROCHEM./7011

PERIOD OF REPORT : DEC 31, 87 TO APR 26, 88

PRECIP.		FREE H ⁺		TOTAL H ⁺		SULPHATE		NITRATE AS N		CALCIUM	
		FIELD	LAB	GRAN	MG/M ²						
* OF SAMPLES	:	76	0	36	37	1.9200	58.40	41	10.908	4.560	
MAXIMUM	:	20.2	*****	1.2420	0.0001	0.0150	0.09	0.018	0.000	0.000	
MINIMUM	:	0.2	*****	0.0001	1.2419	1.9050	58.31	10.890	4.560		
RANGE	:	20.1	*****	0.2550	0.4135	0.4013	9.56	3.008	1.002		
ARITH. MEAN	:	3.4	*****	0.2660	0.1027	0.2514	11.55	2.75	1.106		
ARITH. STD. DEV	:	4.7	*****	0.0795	0.1256	4.92	1.709	0.779	0.779		
GEOM. MEAN	:	1.1	*****	0.2148	0.3138	1.98	0.993	0.192	0.192		
1ST QUARTILE	:	0.2	*****	0.3100	0.4916	13.43	5.46	2.146	0.600		
2ND QUARTILE	:	1.3	*****	0.1533	0.2340	5.64	3.624	1.530	1.530		
3RD QUARTILE	:	4.9	*****	0.4049	0.69	1.778	0.455	0.455	0.455		
VOL. WGT. MEAN	:	*****									
CHLORIDE		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM		AS N	
		MG/M ²	MG/M ²	MG/M ²	MG/M ²	MG/M ²	MG/M ²	MG/M ²	MG/M ²	MG/M ²	
* OF SAMPLES	:	41	29	29	0.340	1.875	2.9	40	6.66	6.66	
MAXIMUM	:	2.592	0.876	0.876	0.000	0.000	0.000	0.000	0.000	0.000	
MINIMUM	:	0.018	0.000	0.000	0.3676	0.3676	1.675	6.666	6.666	6.666	
RANGE	:	2.574	0.876	0.876	0.109	0.088	0.470	1.453	1.453	1.453	
ARITH. MEAN	:	0.683	0.109	0.109	0.083	0.083	0.518	1.794	1.794	1.794	
ARITH. STD. DEV	:	0.624	0.176	0.229	0.106	0.106	0.345	0.544	0.544	0.544	
GEOM. MEAN	:	0.459	0.000	0.000	0.024	0.024	0.118	0.105	0.105	0.105	
1ST QUARTILE	:	0.249	0.051	0.051	0.061	0.061	0.205	0.16	0.16	0.16	
2ND QUARTILE	:	0.517	0.135	0.135	0.118	0.118	0.529	1.688	1.688	1.688	
3RD QUARTILE	:	0.847	0.404	0.404	0.049	0.049	0.213	0.838	0.838	0.838	
VOL. WGT. MEAN	:	*****									

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
 (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WELLESLEY/DAILY/AEROCHEM

PERIOD OF REPORT : JAN 1, 88 10 DEC 30, 88

		PRECIP.	FREE H ⁺ FIELD HG/H**#2	FREE H ⁺ LAB HG/H**#2	TOTAL H ⁺ GASH HG/H**#2	SULPHATE HG/H**#2	NITR. I. AS N HG/H**#2	CALCIUM HG/H**#2
* OF SAMPLES	:	161	73	135	135	131	131	115
MAXIMUM	:	44.9	5.7842	3.9106	5.2533	206.54	19.756	27.008
MINIMUM	:	0.1	0.0011	0.0000	0.0048	0.23	0.000	0.000
RANGE	:	44.8	5.7831	3.9106	5.2485	206.31	19.756	27.008
ARITH. MEAN	:	5.1	0.7359	0.2544	0.3971	19.22	3.073	2.819
ARITH. STD. DEV	:	6.7	1.0015	0.4895	0.6301	27.46	3.492	4.056
GEOM. MEAN	:	2.5	0.2602	0.0213	0.1532	9.14	1.581	1.400
1ST QUARTILE	:	1.1	0.1643	0.0099	0.0546	3.86	0.772	0.532
2ND QUARTILE	:	2.9	0.4196	0.0787	0.1924	11.90	2.157	1.283
3RD QUARTILE	:	6.0	0.8661	0.3537	0.5056	22.55	4.044	3.657
VOL. WGT. MEAN	:	*****	0.4047	0.2218	0.3463	16.31	2.608	2.193

		CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM	
		HG/H**#2	HG/H**#2	HG/H**#2	HG/H**#2	AS N	HG/H**#2
* OF SAMPLES	:	130	115	114	115	133	
MAXIMUM	:	8.160	5.686	1.110	1.307	24.515	
MINIMUM	:	0.000	0.000	0.000	0.000	0.045	
RANGE	:	8.160	5.486	2.110	3.307	24.470	
ARITH. MEAN	:	1.120	0.574	0.208	0.413	3.612	
ARITH. STD. DEV	:	1.436	0.886	0.309	0.603	4.055	
GEOM. MEAN	:	0.602	0.281	0.138	0.220	1.922	
1ST QUARTILE	:	0.222	0.114	0.059	0.065	0.938	
2ND QUARTILE	:	0.605	0.254	0.107	0.206	2.193	
3RD QUARTILE	:	1.400	0.638	0.247	0.461	4.062	
VOL. WGT. MEAN	:	0.947	0.447	0.161	0.321	2.944	

***** : INADEQUATE DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH
 NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION

(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF DEPOSITION

STATION=WILMER AEROCHEM SITE NO. 1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	180.0	180.	19.61	180.	13.68	180.
MAXIMUM	32.4	77.49	0.08	0.04	0.00	2.695
MINIMUM	0.2	14.71	0.08	3.28	1.70	0.000
ARITH. MEAN	4.3	14.91	3.14	2.35	0.96	0.243
ARITH. STD. DEV	5.4	7.66	1.88	0.94	1.48	0.372
GEOM. MEAN	1.9	3.26	1.10	0.43	0.57	0.135
1ST QUARTILE	0.4	10.78	2.51	0.97	0.18	0.040
2ND QUARTILE	2.2	19.56	4.28	2.10	0.54	0.132
3RD QUARTILE	6.4	10.57	2.37	1.18	1.26	0.288
VOL. WGT. MEAN	2.0	5.6	57	60	0.69	0.169
MISSING VALUES					55	60
	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB UG/M**2	
# OF SAMPLES	180	180	180	180	180.00	
MAXIMUM	0.800	2.736	9.546	1992.60	1562.5	
MINIMUM	0.000	0.000	0.000	8.36	0.02	
ARITH. MEAN	0.157	0.413	1.851	452.49	291.93	
ARITH. STD. DEV	0.144	0.548	1.944	424.59	304.63	
GEOM. MEAN	0.115	0.217	1.052	262.13	111.19	
1ST QUARTILE	0.056	0.078	0.478	146.40	63.65	
2ND QUARTILE	0.120	0.212	1.232	338.52	188.47	
3RD QUARTILE	0.231	0.495	2.482	609.75	433.81	
VOL. WGT. MEAN	0.109	0.287	1.343	319.04	58.	
MISSING VALUES	60	56	58	58.00		

PART VI

SUMMARY STATISTICS OF WET DEPOSITION BY REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/DAILY PRECIPITATION

PERIOD OF REPORT : DEC 31, 87 TO DEC 31,88

PRECIP.	FREE H+		TOTAL H+		SULPHATE		NITRATE		CALCIUM	
	FIELD	LAB	GRAN		MG/M**2	MG/M**2	AS N		MG/M**2	MG/M**2
			MG	M**2			MG	M**2		
* OF SAMPLES	648	350	75	5,7147	576	564	558	518		
MAXIMUM	72.0	5,2048	4,3292	0,0000	0,0012	0,000	29,520	27,500		
MINIMUM	0.0	0.0001	0,3292	5,7135	307,80	0,000	0,000	0,000		
RANGE	72.0	5,2047	4,3292	0,2575	0,4009	14,69	29,520	27,500		
ARITH. MEAN	5.0	0,4227	0,4827	0,6006	0,6435	28,11	2,916	1,749		
ARITH. STD. DEV	6.6	2.1	0,1863	0,0447	0,1447	4,76	3,863	2,999		
GEOH. MEAN	2.1	0,0916	0,0122	0,0099	0,0099	1,64	1,180	0,741		
1ST QUARTILE	0.8	0,2525	0,0891	0,1718	0,1718	5,99	1,325	0,774		
2ND QUARTILE	2.4	0,5181	0,2940	0,4846	0,4846	17,20	3,969	1,848		
3RD QUARTILE	6.6	0,2665	0,2359	0,3676	0,3676	13,19	2,597	1,457		
VOL. WGT. MEAN	****									

PRECIP.	CHLORIDE		MAGNESIUM		POTASSIUM		SODIUM		AMMONIUM	
	FIELD	LAB	GRAN		MG/M**2	MG/M**2	AS N		MG/M**2	MG/M**2
			MG	M**2			MG	M**2		
* OF SAMPLES	565	517	518	518	518	518	580	580		
MAXIMUM	15,120	4,902	2,130	7,200	0,000	0,000	35,112	35,112		
MINIMUM	0,000	0,000	0,000	0,000			0,000	0,000		
RANGE	15,120	4,902	2,130	7,200			35,112	35,112		
ARITH. MEAN	0,865	0,230	0,193	0,350			2,119	2,119		
ARITH. STD. DEV	1,402	0,437	0,271	0,665			3,562	3,562		
GEOH. MEAN	0,419	0,120	0,110	0,168			0,591	0,591		
1ST QUARTILE	0,127	0,025	0,039	0,055			0,179	0,179		
2ND QUARTILE	0,384	0,090	0,105	0,165			0,850	0,850		
3RD QUARTILE	1,055	0,226	0,243	0,360			2,426	2,426		
VOL. WGT. MEAN	0,778	0,191	0,161	0,292			1,950	1,950		

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : APR 11, 88 TO DEC 31, 88

PRECIP.	FREE H ⁺		TOTAL H ⁺		SULPHATE		NITRATE	
	FIELD	LAB	GRAN	MG/M ²	MG/M ²	MG/M ²	AS N	MG/M ²
	MG/H ²	MG/H ²	MG/H ²	MG/H ²	MG/H ²	MG/H ²	MG/H ²	MG/H ²
* OF SAMPLES	262	127	179	1.79	1.71	1.76	1.68	
MAXIMUM	140.0	4.2961	5.1123	6.5540	248.60	49.720	27.120	
MINIMUM	0.0	0.0034	0.0000	0.0028	0.00	0.000	0.000	
RANGE	140.0	4.2927	5.1123	5.5512	248.60	49.720	27.120	
ARITH. MEAN	5.8	0.4515	0.4686	0.4697	14.19	2.749	1.082	
ARITH. STD. DEV	15.1	0.6259	0.4062	0.8480	27.55	5.185	2.604	
GEOH. MEAN	1.2	0.2106	0.0520	0.1450	4.21	0.805	0.409	
1ST QUARTILE	0.3	0.0862	0.023	0.0415	1.02	0.153	0.065	
2ND QUARTILE	1.4	0.2243	0.0202	0.1916	5.74	1.055	0.299	
3RD QUARTILE	5.4	0.5780	0.3019	0.4963	17.15	3.350	1.004	
VOL. WGT. MEAN	*****	0.2669	0.1911	0.3342	9.73	1.862	0.733	
CHLORIDE	MAGNESIUM		POSSASSH		SODIUM		AMMONIUM	
MG/H ²	MG/H ²	MG/H ²	MG/H ²	MG/H ²	MG/H ²	MG/H ²	AS N	MG/H ²
* OF SAMPLES	172	168	166	1.68	1.79	1.79		
MAXIMUM	8.786	4.520	4.520	8.475	38.420	38.420		
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000		
RANGE	8.786	4.520	4.520	8.475	38.420	38.420		
ARITH. MEAN	0.642	0.175	0.251	0.351	1.700	1.700		
ARITH. STD. DEV	1.193	0.427	0.505	0.850	3.746	3.746		
GEOH. MEAN	0.351	0.091	0.123	0.152	0.395	0.395		
1ST QUARTILE	0.056	0.008	0.031	0.053	0.066	0.066		
2ND QUARTILE	0.237	0.048	0.111	0.137	0.518	0.518		
3RD QUARTILE	0.688	0.174	0.270	0.312	2.053	2.053		
VOL. WGT. MEAN	0.439	0.119	0.169	0.238	1.326	1.326		

INSUFFICIENT DATA

NOTE(1) : *SPECI₁ - *SPECI₂ REPRESENT GAUGE DEPTH
 NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
 (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1, 88 TO DEC 30, 88

PRECIP.	FREE H+ FIELD HG/H**2	FREE H+ LAB HG/H**2	TOTAL H+ GRAN HG/H**2	SULPHATE HG/H**2	NITRATE AS N HG/H**2	CALCIUM HG/H**2
* OF SAMPLES	341	0	254	260	260	253
MAXIMUM	140.0	*****	1,2866	1,26,84	19,488	30,240
MINIMUM	0.1	*****	0.0000	0.0010	0.00	0.0000
RANGE	139.9	*****	1,2865	2,8690	126,34	30,240
ARITH. MEAN	7.5	*****	0.0868	0.2722	9,84	1,875
STD. DEV	11.5	*****	0.1378	0.3228	13,49	3,209
GEOR. MEAN	2.9	*****	0.0192	0.1439	4,31	0.935
1ST QUARTILE	1.1	*****	0.0040	0.0734	1.99	0.259
2ND QUARTILE	4.3	*****	0.0370	0.1932	5,79	1,587
3RD QUARTILE	9.3	*****	0.1138	0.3497	13,35	3,142
VOL. WGT. MEAN	0.497	*****	0.0690	0.2163	7,94	1,808
CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM	AS N	
HG/H**2	HG/H**2	HG/H**2	HG/H**2	HG/H**2	HG/H**2	
* OF SAMPLES	260	253	253	252	268	
MAXIMUM	11,936	3,192	5,292	5,294	29,479	
MINIMUM	0.000	0.000	0.000	0.000	0.000	
RANGE	11,936	3,192	5,292	6,384	29,479	
ARITH. MEAN	0.616	0.282	0.361	0.435	2,549	
STD. DEV	1.015	0.469	0.523	0.774	3,554	
GEOR. MEAN	0.459	0.202	0.196	0.226	0.922	
1ST QUARTILE	0.106	0.031	0.051	0.073	0.331	
2ND QUARTILE	0.372	0.132	0.172	0.188	1,376	
3RD QUARTILE	0.750	0.335	0.400	0.431	3,230	
VOL. WGT. MEAN	0.497	0.221	0.267	0.340	2,103	

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 4, 88 TO DEC 31, 86

	PRECIP.	FREE H+	FREE H+	TOTAL H+	SULPHATE	NITRATE	CALCIUM
	FIELD	LAB	MG/M ²	GRAN	MG/M ²	AS N	MG/M ²
	MG/M ²						
* OF SAMPLES	342	67	266	266	272	271	261
MAXIMUM	113.8	2.1023	4.0378	6.6004	176.59	27.312	17.640
MINIMUM	0.2	0.0002	0.0000	0.0000	0.000	0.000	0.000
RANGE	113.6	2.1021	4.0378	6.6004	176.39	27.312	17.640
ARITH. MEAN	5.8	0.4578	0.3428	0.5231	18.36	3.449	1.940
ARITH. STD. DEV	8.8	0.4296	0.4217	0.6221	21.75	3.449	2.538
GEOH. MEAN	2.6	0.2358	0.1306	0.2955	9.15	2.108	1.044
1ST QUARTILE	0.8	0.1414	0.0780	0.1605	4.46	1.238	0.420
2ND QUARTILE	3.0	0.3906	0.2502	0.3777	11.69	2.562	1.080
3RD QUARTILE	7.4	0.6012	0.4647	0.6781	23.16	4.765	2.292
VOL. WGT. MEAN	*****	0.3745	0.2801	0.4345	15.29	2.960	1.565

	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
	MG/M ²	MG/M ²	MG/M ²	MG/M ²	AS N
	MG/M ²				
* OF SAMPLES	273	261	262	262	268
MAXIMUM	36.750	2.695	7.556	7.866	16.615
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	36.750	2.695	2.556	7.866	16.615
ARITH. MEAN	1.186	0.281	0.199	0.413	2.349
ARITH. STD. DEV	2.551	0.377	0.262	0.679	2.625
GEOH. MEAN	0.653	0.181	0.139	0.234	1.229
1ST QUARTILE	0.228	0.058	0.054	0.081	0.659
2ND QUARTILE	0.576	0.153	0.120	0.201	1.435
3RD QUARTILE	1.360	0.318	0.240	0.462	3.082
VOL. WGT. MEAN	0.991	0.226	0.160	0.334	1.950

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME, WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 15, 88 TO DEC 31,88

PRECIP.		FREE H ⁺	H ⁺	TOTAL H ⁺	SULPHATE	NITRATE	CALCIUM
	MM	FIELD MG/H ⁺ *2	LAB MG/H ⁺ *2	GRAN MG/H ⁺ *2	MG/H ⁺ *2	AS N MG/H ⁺ *2	MG/M ² H ²
# OF SAMPLES	:	602	293	515	516	495	455
MAXIMUM	:	69.0	20.3634	7.2252	9.1080	334.65	33.306
MINIMUM	:	0.1	0.0002	0.0000	0.0000	0.000	0.000
RANGE	:	68.9	20.3632	7.2252	9.1080	334.65	33.306
ARITH. MEAN	:	5.5	1.1246	0.2226	0.4481	20.29	2.857
ARITH. STD. DEV	:	7.8	1.9927	0.5795	0.7540	30.18	4.053
GEOM. MEAN	:	2.6	0.3177	0.0248	0.1607	9.20	1.499
1ST QUARTILE	:	1.0	0.1561	0.0015	0.0490	4.01	0.680
2ND QUARTILE	:	2.6	0.4473	0.0805	0.1825	10.86	2.262
3RD QUARTILE	:	6.6	1.1482	0.3181	0.5179	25.98	4.355
VOL. WGT. MEAN	:	*****	0.6716	0.2613	0.4005	17.60	2.311
						2.988	

CHLORIDE		MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
	MG/H ⁺ *2	MG/H ⁺ *2	MG/H ⁺ *2	MG/H ⁺ *2	AS N MG/H ⁺ *2
# OF SAMPLES	:	496	455	453	455
MAXIMUM	:	15.408	5.486	4.992	6.946
MINIMUM	:	0.000	0.000	0.000	0.000
RANGE	:	15.408	5.486	4.992	6.946
ARITH. MEAN	:	1.296	0.567	0.333	0.517
ARITH. STD. DEV	:	1.721	0.799	0.502	0.766
GEOM. MEAN	:	0.742	0.293	0.180	0.263
1ST QUARTILE	:	0.296	0.118	0.070	0.107
2ND QUARTILE	:	0.736	0.276	0.168	0.230
3RD QUARTILE	:	1.575	0.591	0.352	0.632
VOL. WGT. MEAN	:	1.127	0.443	0.269	0.418
				3.946	2.849

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

PART VII

SUMMARY STATISTICS OF AIR CONCENTRATION BY STATION, REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AIR

PERIOD OF REPORT	JAN 15,88	TO	DEC 31,88		PAGE : 1
SULPHUR DIOXIDE		SULPHATE		NITRIC AS N	TOTAL NO3 AS N
UG/H**3		UG/H**3		UG/H**3	UG/H**3
# OF SAMPLES	294.0	297.00	298.00	293.000	298.00
MAXIMUM	43.5	73.10	1.31	5.370	2.01
MINIMUM	0.0	0.00	0.00	0.000	0.00
RANGE	43.5	73.10	1.31	5.370	2.01
ARITH. MEAN	5.3	3.95	0.25	0.833	0.21
ARITH. STD. DEV	6.4	6.55	0.27	0.982	0.28
GEOM. MEAN	2.7	2.25	0.19	0.495	0.12
1ST QUARTILE	0.8	1.13	0.05	0.197	0.04
2ND QUARTILE	3.3	2.09	0.15	0.485	0.10
3RD QUARTILE	7.0	4.00	0.37	1.066	0.29

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AIR

#11

PERIOD OF REPORT	DEC 31,87	TO	DEC 31,88		PAGE : 1
SULPHUR DIOXIDE			SULPHATE	NITRIC AS N	NITRATE AS N
UG/H ₂ 3			UG/H ₂ 3	UG/H ₂ 3	UG/H ₂ 3
# OF SAMPLES :	237.0		237.00	236.000	235.00
MAXIMUM :	82.6	28.15	1.57	5.688	1.16
MINIMUM :	0.0	0.00	0.00	0.000	0.00
RANGE :	82.6	28.15	1.57	5.688	1.16
ARITH. MEAN :	3.9	3.51	0.33	0.809	0.12
ARITH. STD. DEV :	7.0	4.89	0.35	1.116	0.16
GEOGM. MEAN :	1.9	1.94	0.26	0.531	0.12
1ST QUARTILE :	0.6	0.66	0.07	0.120	0.03
2ND QUARTILE :	1.7	1.84	0.21	0.431	0.07
3RD QUARTILE :	4.5	3.97	0.46	1.013	0.14
					0.70

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AIR		#08		PAGE : 1	
PERIOD OF REPORT : DEC 31,87 TO DEC 31,88					
	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3
* OF SAMPLES :	359.0	359.00	358.000	359.00	359.00
MAXIMUM :	34.9	26.04	1.10	7.083	1.41
MINIMUM :	0.0	0.00	0.00	0.000	0.00
RANGE :	34.9	26.04	1.10	7.083	1.41
ARITH. MEAN :	4.7	3.15	0.18	0.667	0.12
ARITH. STD. DEV :	6.1	3.84	0.21	0.932	0.22
GEOH. MEAN :	2.3	2.02	0.15	0.321	0.09
1ST QUARTILE :	0.6	1.13	0.03	0.105	0.01
2ND QUARTILE :	2.3	1.96	0.10	0.308	0.04
3RD QUARTILE :	6.5	3.54	0.27	0.836	0.10
					0.43

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EGBERT/DAILY/AIR		PERIOD OF REPORT : SEP 29,88 TO DEC 31,88		PAGE : 1	
SULPHUR	DIOXIDE	UG/M ³	SULPHATE	NITRIC	AMMONIUM
UG/M ³			UG/M ³	AS N	AS N
* OF SAMPLES	:	88.0	88.00	UG/H ³	UG/H ³
MAXIMUM	:	30.5	12.83	1.24	0.041
MINIMUM	:	0.0	0.00	0.00	0.00
RANGE	:	30.5	12.83	1.24	0.041
ARITH. MEAN	:	7.7	2.59	0.13	0.056
ARITH. STD. DEV	:	7.9	2.24	0.16	0.944
GEOGM. MEAN	:	4.2	1.91	0.10	0.658
1ST QUARTILE	:	1.8	1.14	0.05	0.343
2ND QUARTILE	:	5.7	1.96	0.09	0.820
3RD QUARTILE	:	10.6	3.08	0.15	1.386
				88.00	88.00
				2.05	2.41
				0.00	0.01
				2.05	2.40
				0.53	0.66
				0.58	0.64
				0.25	0.36
				0.08	0.15
				0.31	0.46
				0.75	0.99

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY/AIR		#16		PAGE : 1	
PERIOD OF REPORT	: DEC 31, 87	TO	DEC 31, 88		
SULPHUR	SULPHATE	NITRIC	AMMONIUM	NITRATE	TOTL N03
DIOXIDE	UG/M**3	AS N	AS N	AS N	AS N
UG/H**3	UG/H**3	UG/H**3	UG/H**3	UG/H**3	UG/H**3
* OF SAMPLES	330.0	330.00	329.000	330.00	330.00
MAXIMUM	: 5.6	11.42	1.07	2.822	1.18
MINIMUM	: 0.0	0.00	0.00	0.00	0.00
RANGE	: 5.6	11.42	1.07	2.822	1.18
ARITH. MEAN	: 1.0	1.38	0.10	0.327	0.08
ARITH. STD. DEV	: 1.1	1.36	0.13	0.409	0.17
GEOGM. MEAN	: 0.7	0.96	0.12	0.181	0.14
1ST QUARTILE	: 0.2	0.60	0.01	0.088	0.00
2ND QUARTILE	: 0.5	0.99	0.06	0.199	0.04
3RD QUARTILE	: 1.4	1.66	0.13	0.418	0.07

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : HIGH FALLS/DAILY/AIR

PERIOD OF REPORT	DEC 31,87	TO	DEC 31,88		PAGE : 1
SULPHUR DIOXIDE UG/M**3			SULPHATE UG/H**3		
# OF SAMPLES	362.0		362.00	362.00	
MAXIMUM	82.4		22.81	1.06	4.234
MINIMUM	0.0		0.00	0.00	0.00
RANGE	82.4		22.81	1.06	4.234
ARITH. MEAN	4.5		2.46	0.11	0.505
ARITH. STD. DEV	9.8		2.87	0.15	0.690
GEOGM. MEAN	1.5		1.52	0.10	0.242
1ST QUARTILE	0.3		0.85	0.02	0.106
2ND QUARTILE	1.3		1.54	0.05	0.251
3RD QUARTILE	4.8		2.72	0.15	0.586
					362.00
					362.00
					1.55
					1.78
					0.00
					0.00
					1.55
					1.78
					0.07
					0.18
					0.07
					0.15
					0.25
					0.08
					0.11
					0.01
					0.04
					0.01
					0.06
					0.20

ONTARIO MINISTRY [REDACTED] THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AIR	PERIOD OF REPORT : DEC 31,87	TO DEC 31,88	#02	PAGE : 1
SULPHUR DIOXIDE	UG/H**3	SULPHATE	NITRIC AS N UG/H**3	AMMONIUM AS N UG/H**3
# OF SAMPLES :	358.0	358.00	358.00	358.00
MAXIMUM :	60.9	41.19	2.67	8.956
MINIMUM :	0.0	0.00	0.00	0.00
RANGE :	60.9	41.19	2.67	8.956
ARITH. MEAN :	9.1	5.09	0.39	1.333
ARITH. STD. DEV :	8.6	5.80	0.38	1.354
GEOH. MEAN :	5.7	3.38	0.25	0.859
1ST QUARTILE :	3.0	1.97	0.12	0.404
2ND QUARTILE :	6.8	3.23	0.25	0.964
3RD QUARTILE :	12.2	5.85	0.54	1.652

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PENN. STATE/DAILY/AIR

PERIOD OF REPORT	TO	DEC 31, 68			P _{40,0,0} : 1
SULPHUR DIOXIDE	UG/M**3	SULPHATE	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3
* OF SAMPLES	: 217.0	218.00	218.00	218.00	218.00
MAXIMUM	: 120.4	40.72	1.36	5.884	1.29
MINIMUM	: 0.0	0.08	0.00	0.000	0.00
RANGE	: 120.4	40.64	1.36	5.884	1.29
ARITH. MEAN	: 11.9	7.36	0.38	1.526	0.15
ARITH. STD. DEV	: 13.8	7.79	0.25	1.334	0.17
GEOH. MEAN	: 7.3	4.81	0.20	1.109	0.09
1ST QUARTILE	: 3.9	2.69	0.19	0.581	0.04
2ND QUARTILE	: 8.2	4.26	0.34	1.064	0.09
3RD QUARTILE	: 13.4	8.10	0.69	1.998	0.18

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WELLESLEY/DAILY/AIR

PERIOD OF REPORT	JAN 12,88	TO	DEC 31,88		PAGE : 1
SULPHUR DIOXIDE				SULPHATE	NITRIC AS N
UG/M ³				UG/H ³	UG/H ³
* OF SAMPLES	:	331.0	331.00	331.00	328.000
MAXIMUM	:	70.1	51.28	1.56	14.213
MINIMUM	:	0.0	0.01	0.00	0.000
RANGE	:	70.1	51.27	1.56	14.213
ARITH. MEAN	:	7.3	4.84	0.28	1.609
ARITH. STD. DEV	:	8.5	5.55	0.34	1.695
GEOH. MEAN	:	4.0	3.20	0.15	0.959
1ST QUARTILE	:	1.7	1.85	0.05	0.508
2ND QUARTILE	:	4.6	3.32	0.13	1.172
3RD QUARTILE	:	10.2	5.44	0.34	2.153
					1.00
					330.00
					330.00
					3.94
					0.00
					0.00
					0.91
					0.63
					0.66
					0.75
					0.58
					0.36
					0.36
					0.29
					0.13
					0.41
					0.77
					1.35

PART VIII

SUMMARY STATISTICS OF AIR CONCENTRATION BY REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/DAILY/AIR		PERIOD OF REPORT : DEC 31,87 TO DEC 31,88		NITRIC AS N UG/M**3		AMMONIUM AS N UG/M**3		NITRATE AS N UG/M**3		TOTAL NO3 AS N UG/M**3		PAGE : 1	
SULPHUR DIOXIDE	UG/M**3	SULPHATE	UG/H**3										
# OF SAMPLES	:	653.0	656.00	657.00	651.000	657.00	657.00						
MAXIMUM	:	43.5	73.10	1.31	7.083	2.01	2.29						
MINIMUM	:	0.0	0.00	0.00	0.000	0.00	0.00						
RANGE	:	43.5	73.10	1.31	7.083	2.01	2.29						
ARITH. MEAN	:	5.0	3.51	0.21	0.742	0.16	0.37						
ARITH. STD. DEV	:	6.2	5.25	0.24	0.957	0.25	0.41						
GEOH. MEAN	:	2.4	2.12	0.16	0.390	0.10	0.22						
1ST QUARTILE	:	0.7	1.15	0.04	0.142	0.02	0.08						
2ND QUARTILE	:	2.8	2.04	0.12	0.385	0.06	0.20						
3RD QUARTILE	:	6.8	3.89	0.31	0.965	0.18	0.55						

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHEASTERN/DAILY/AIR

PERIOD OF REPORT	FEB 3,88	TO	DEC 31,88		PAGE : 1
SULPHUR DIOXIDE	UG/M**3	SULPHATE	NITRIC AS N	AMMONIUM AS N	TOTAL NO3 AS N
* OF SAMPLES	: 691.0	691.00	UG/M**3	UG/M**3	UG/M**3
MAXIMUM	: 82.4	22.81	1.24	4.234	1.55
MINIMUM	: 0.0	0.00	0.00	0.000	0.00
RANGE	: 82.4	22.81	1.24	4.234	1.55
ARITH. MEAN	: 4.3	2.29	0.11	0.445	0.05
ARITH. STD. DEV	: 9.4	2.71	0.16	0.611	0.12
GEOH. MEAN	: 1.4	1.43	0.09	0.225	0.07
1ST QUARTILE	: 0.2	0.77	0.02	0.099	0.00
2ND QUARTILE	: 1.0	1.45	0.05	0.237	0.02
3RD QUARTILE	: 4.6	2.58	0.14	0.505	0.05

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN/DAILY/AIR

PERIOD OF REPORT : DEC 31,87 TO DEC 31,88

PAGE : 1

	SULPHUR DIOXIDE UG/H**3	SULPHATE UG/H**3	NITRIC AS N UG/H**3	AMMONIUM AS N UG/H**3	NITRATE AS N UG/H**3	TOTL NO3 AS N UG/H**3
# OF SAMPLES	: 330.0	330.00	330.00	329.000	330.00	330.00
MAXIMUM	: 5.6	11.42	1.07	2.822	1.18	2.19
MINIMUM	: 0.0	0.00	0.00	0.000	0.00	0.00
RANGE	: 5.6	11.42	1.07	2.822	1.18	2.19
ARITH. MEAN	: 1.0	1.38	0.10	0.327	0.08	0.18
ARITH. STD. DEV	: 1.1	1.36	0.13	0.409	0.17	0.26
GEOH. MEAN	: 0.7	0.96	0.12	0.181	0.14	0.13
1ST QUARTILE	: 0.2	0.60	0.01	0.088	0.00	0.04
2ND QUARTILE	: 0.5	0.99	0.06	0.199	0.04	0.09
3RD QUARTILE	: 1.4	1.66	0.13	0.418	0.07	0.20

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN/DAILY/AIR

PERIOD OF REPORT : DEC 31, 87 TO DEC 31, 88

					PAGE : 1
SULPHUR	SULPHATE	NITRIC	AMMONIUM	NITRATE	TOtal NO3
DIOXIDE	UG/M**3	AS N	AS N	AS N	AS N
UG/M**3	UG/M**3	UG/M**3	UG/M**3	UG/M**3	UG/M**3
# OF SAMPLES	237.0	237.00	236.000	235.00	235.00
MAXIMUM	82.6	28.15	1.57	5.688	2.01
MINIMUM	0.0	0.00	0.00	0.00	0.00
RANGE	82.6	26.15	1.57	5.688	2.01
ARITH. MEAN	3.9	3.51	0.75	0.809	0.12
ARITH. STD. DEV	7.0	4.89	0.35	1.116	0.42
GEOH. MEAN	1.9	1.94	0.26	0.531	0.17
1ST QUARTILE	0.6	0.66	0.07	0.120	0.03
2ND QUARTILE	1.7	1.84	0.21	0.451	0.07
3RD QUARTILE	4.5	3.97	0.66	1.013	0.14

ONTARIO MINISTRY OF THE ENVIRONMENT
 SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN/DAILY/AIR		PERIOD OF REPORT : DEC 31, 87 TO DEC 31, 88		PAGE : 1	
		SULPHUR	SULPHATE	AMMONIUM	NITRATE
	DIOXIDE	UG/M**3	UG/M**3	AS N	AS N
# OF SAMPLES	: 777.0	777.00	777.00	UG/M**3	UG/M**3
MAXIMUM	: 70.1	51.28	2.67	14.213	3.70
MINIMUM	: 0.0	0.00	0.00	0.000	0.00
RANGE	: 70.1	51.28	2.67	14.213	3.70
ARITH. MEAN	: 8.2	4.70	0.31	1.418	0.57
ARITH. STD. DEV	: 8.5	5.45	0.36	1.482	0.60
GEM. MEAN	: 4.7	3.10	0.18	0.873	0.34
1ST QUARTILE	: 2.3	1.80	0.07	0.476	0.14
2ND QUARTILE	: 5.7	3.05	0.16	1.005	0.38
3RD QUARTILE	: 11.0	5.35	0.41	1.795	0.79
					1.24

